

# THE JOURNAL OF MEDICAL EDUCATION

OFFICIAL PUBLICATION OF  
THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES



JANUARY 1957 • VOLUME 32 • NUMBER 1

## MINUTES OF THE 67th ANNUAL MEETING

Also:

Horizons of Medical Education.....Ward Darley

Teaching in all Four Years of Medical School by  
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British Medical Education and the General Medical  
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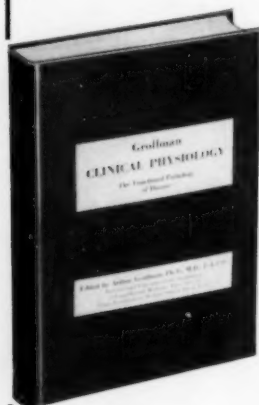
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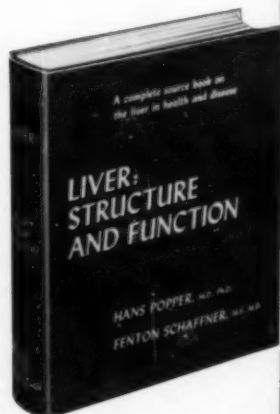
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## The Journal of MEDICAL EDUCATION



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Dr. Georgeanna Seegar Jones has rewritten the several sections on endocrinology, Dr. Roy G. Holly those on iron metabolism and anemia, and Dr. Alan F. Guttmacher the chapter on multiple pregnancy. New material on Rh incompatibility is supplied by Dr. Milton Sacks, the embryology chapters have been revised by Dr. George W. Bartelmez and Dr. Leon C. Chesley has critically reviewed the long chapter on the toxemias of pregnancy.

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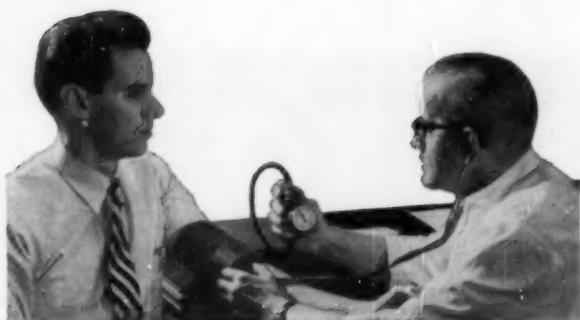
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Annual Meeting of the National Tuberculosis Association and the American Trudeau Society—May 5-11, 1957. Kansas City, Mo.

Annual Congress on Industrial Health—February 4-6; Biltmore Hotel, Los Angeles.

International Congress on Medicine and Surgery—June 1-9, 1957. Turin, Italy.

Annual Congress on Medical Education and Licensure—February 10-12; Palmer House, Chicago.

Canadian Medical Association—June 17-21; Edmonton, Alberta, Canada.

Sixth International Congress of Otolaryngology—May 5-10. Washington, D. C.

International Congress of Neurological Sciences—July 21-28, 1957. Brussels, Belgium.

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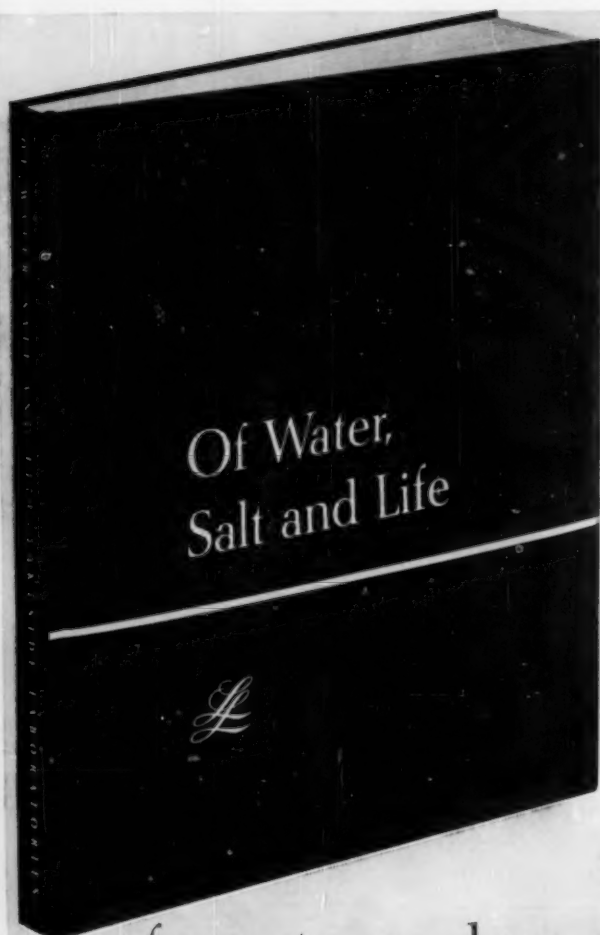
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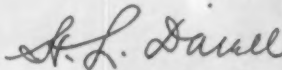
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Scientific Director

# Horizons of Medical Education

WARD DARLEY

**K**EEPING WHAT WE TEACH up to date with what we know is one of the greatest single problems in medicine, and as research important to medicine goes on at an ever accelerating pace, this problem will take on increasing importance. In fact, research adds to the problems of medical education not only because of the new knowledge it produces, but because new knowledge increases the effectiveness of medicine—this in turn leads to the demand for more service which leads to the need for more doctors. And so it goes and will continue to go—the work of our schools of medicine, like a woman's work, will never be done.

The last 30 years, a time within the easy memory of us all, has seen a tremendous increase in the effectiveness of medicine. Infantile and childhood death rates have decreased precipitously. Chronic and acute bacterial diseases have become almost rare. Daring surgery and anesthesiology have become commonplace. The average lifespan has been increased by many years. Our people, now aware of this increase of medicine's effectiveness, are demanding more hospitals and diagnostic and treatment facilities, more health service personnel and ways and means of both reducing and spreading the costs of medical care.

In between this increasing effec-

tiveness of medicine and this increasing demand for medical service we find the institutions that are concerned with the education and training of health service personnel. While the numbers and kinds of health service personnel which must be educated and trained are many and while many kinds of schools and combinations of facilities are essential to this education and training, it is our physicians and our medical schools that constitute the essential core of all this system of service and education.

## "Unappreciated"

The importance of this key position of our medical school is something that has never been sufficiently appreciated by the general public; doctors and their education have always more or less been taken for granted. It is therefore fitting that the National Fund for Medical Education should have been brought into being for the purpose of helping to maintain the place of the medical school in our scheme of education-for-health service. Men of vision started the fund at the time when impending physician shortages due to the increasing demands for medical service and the inadequate financing of our schools of medicine demanded that something be done. That something was done is evidenced by the gathering here tonight of a large number of our nation's leaders to honor one of the men, Colby M. Chester, who helped establish the

Dr. Darley is Executive Director of the Association of American Medical Colleges. He was formerly president of the University of Colorado. These remarks were made at a dinner October 16, 1956 honoring Colby M. Chester, Chairman, Committee of American Industry, National Fund for Medical Education.



National Fund for Medical Education, and whose time, energy and financial resources have been given unstintingly to the strengthening of our schools of medicine—a strengthening that has meant much more than the actual dollars involved, because while the dollars have been important so has the independence and freedom of decision and action that has gone with them. In these days of rapid change, education must have both dollars and freedom. Medical education, of course, can be no exception.

The manner in which the horizons of medicine have been expanding and will continue to expand carry great implications for medical education. In no field are the knowledge and concepts important to education changing any faster. A quick look back and another forward will emphasize this point.

#### **A look back**

In the mid-1920's, when I was in medical school, the impact of the Flexner Report of 1911 together with the interest of many wealthy foundations and individuals had just come to fruition. It had been but a short time since our medical schools had obtained satisfactory clinical, laboratory and library facilities and had established full-time, well qualified teachers in the basic sciences. Clinical medicine was still adjusting itself to a new and high level of scientific understanding.

This progress was not based upon sudden scientific discovery. It was based upon research that had been taking place over the years in the university centers of the world in a quiet, low-pressure sort of way. The Flexner Report simply brought this accumulated knowledge actively and uniformly into medical teaching and practice. This had been a gradual and

laborious process, and even following the apparent, complete change-over the incorporation of new knowledge and practices into the curricula of many medical schools continued to be slow. In the meantime the body of knowledge important to medicine had continued to increase and was reaching the point where its fragmentation into specialty areas was becoming more and more necessary. All of this in turn added to the complications of medical education—complications which for the most part were still of very little public concern or interest.

#### **The present**

Now, 30 years later we find that while the tempo of all things medical has increased, and this tremendously, the relative position of our schools of medicine to their same old problems still continues. The effectiveness of research has come to be appreciated by the general public, and the public in turn is pushing both for more medical research and more medical service. But, once again, as far as the general public is concerned our medical schools are far from being appreciated as the key that must open the door to what is wanted and needed. In other words, the institutions that must do much of this research and educate most of the people to do it and certainly the institutions which through their educational programs must translate all of this research into effective service are still being taken for granted.

Yet in all fairness I must admit that, in keeping with the increased tempo I have just spoken of, our schools have been strengthened. Full-time clinical teachers have been added to the faculties. The teaching services of the volunteer practicing physician have been increased in



effectiveness. Teaching departments in the new areas of specialism have been created. The teaching hospital and clinical facilities are well in line with the best of current practice. But yet our schools of medicine are not completely able to keep up with progress because the present rate of acquisition of new knowledge important to medicine and the costs of academic living are moving ahead too fast.

Yes, medical education is facing tremendous problems. The point has been reached where we can no longer solve the problem of an expanding body of knowledge by simply increasing the content and the length of the training period. Limitations upon the human intellectual capacity preclude the addition of much more curricular material without adding to the time now currently required and limitations upon the human span of usefulness make it unreasonable to cut further into one's potential years of professional service. From now on, if the educational period for the practice of medicine is to be kept within these limitations, the question of subject matter must be kept under constant review. It will not be a simple matter of adding new and dropping old curricular material. The task will be rather one of assimilating new and revolutionary concepts which are continuously arising and profoundly changing the time-honored orientations of almost every field of medicine.

#### **Play a more intelligent role**

Students who study medicine must now be so educated to the scientific method and to habits of thinking and analysis that they will never cease to be scholars. And still further, since medical service has become so important to our society, our students

of medicine must somehow be better prepared to play a more intelligent role in the society of which medicine is such an important part. While medical educators are trying, they are far from satisfied that they are attaining these goals. That the goals must be attained is urgently being emphasized by the research and research trends that are currently in progress both in this country and throughout the rest of the world.

#### **Basic biology**

Since the war, new research tools, methods and concepts are beginning to make it clear that we are approaching a much broader and deeper understanding of basic biology than we have ever dreamed of before. The use of radio-active isotopes and the development of many new methods of molecular analysis and electronic measurement together with startling progress in the fields of computation, microscopy, microchemistry and tissue culture are leading our scientists into more satisfying studies of cell genetics, cell function and cell differentiation, and this in turn to a better understanding of the factors involved in normal and abnormal growth and biological damage and repair. Also these and other new concepts and tools are leading to advances in psychology, psychobiology and psychopathology which in turn will permit us a better understanding of human mental and emotional processes and of the development of human personality. Further research, much of it statistical and epidemiological in character, can now be carried on in the working and living environments of our people so that factors long suspected of being important to health and illness can now be actually evaluated. And finally, I believe we can now see the time

when research in the socio-economic aspects of medicine will be pointing the way to a better understanding of the distribution, availability and administration of medical service.

The practical result of our being able to explore these new frontiers, I believe, will lead to an increased understanding of the causes of cancer, arteriosclerosis, the mechanisms of susceptibility and resistance to viral, bacterial, chemical and physical agents and of the factors involved in mental and emotional health and illness. Another practical result from all of this should mean that we will have the tools, methods and knowledge which, if properly applied, will let us make more intensive studies of the biology of man. To put this in more meaningful terms: I mean the study of the anatomical, physiological and psychological reactions to all aspects of environment. It will be studies such as these that will give us an understanding of the natural history of man's health and *a priori* the natural history of his ill health. A few such studies have been in progress for many years and much important, useful knowledge has resulted therefrom. And if the potential inherent in our present-day concepts of preventive medicine and the management of health are ever to be realized, much more of this kind of study will be needed.

#### Increasing population

To complete your appreciation of the problems facing medical education, to the never-ending cycle of increasing knowledge, increasing effectiveness and increasing demand we must add the factor of an increasing and aging population. For our medical schools this means not only educating more doctors but educating them in such a way and in such num-

bers that they can cope with the fact that the demand for service and the need for service are steadily moving closer together.

Little wonder that those of us who are responsible for education in medicine feel concerned when we see our schools having so much difficulty keeping up with progress. And when we see more progress being spelled out for the immediate years ahead, our concern almost turns to alarm. In fact, it seems to me that the changeover which our future teaching responsibilities will call for may well be just as important, just as difficult and, from the relative standpoint, just as expensive as those which resulted from Dr. Flexner's survey.

At this point I realize that what I have been doing is putting forth a line of reasoning that may seem contradictory. On the one hand I complain about the manner in which new knowledge is complicating education for medicine and on the other I am expressing hope for the development of more new knowledge. The simple expedient of adequately increasing the financial strength and freedom of our schools of medicine would completely remove this contradiction from my line of reasoning.

As I have observed the progress of the National Fund for Medical Education since its inception nearly 8 years ago, I know that because of the fund our schools have been financially strengthened most significantly and that the rate of this trend will be rapidly increased. While I realize that the primary objective of the fund has been to provide financial help, I must emphasize that two other important missions are also being accomplished. One is the encouragement and strength that comes out of the realization that those of us working in the vineyard have

the good wishes and moral support of a growing segment of our nation's leadership; the other is the part which the work of the fund is playing in educating the American public to the important way which our schools of medicine are building up the strength of our nation. For all of this we are truly appreciative and thankful.

Tonight we are honoring two of the individuals who have played a most important part in what has been and

is being accomplished; Dr. Frank H. Lahey in memory and Colby M. Chester in person. I count it a signal privilege to have known both of these men—both men of great social concern, vision and action; I also count it a privilege and honor to be a part of this occasion—an occasion which I know is of great importance to the personal significance of these two men, also one of importance to the cause which they both have served.

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### **Nuevos horizontes en la Educación Médica**

En este discurso, pronunciado en New York el 16 de Oct. 1956, con ocasión de un banquete en honor de dos de los fundadores del *National Fund for Medical Education*, el Dr. Ward Darley, Presidente de la Univ. de Colorado, presenta un panorama de los avances de la investigación científica en diversos campos, de los nuevos horizontes para la Educación Médica que éstos implican y de las necesidades, tareas y obligaciones con que las Escuelas médicas, en consecuencia, han de enfrentarse. Estas Escuelas, dice el Dr. Darley, tienen un papel básico, dada la creciente eficacia de la Medicina y la creciente demanda de más y mejores servicios médicos. Aunque no puede haber duda de que los programas y facilidades de enseñanza e investigación médicas han mejorado considerablemente en los últimos 30 años, el Dr. Darley hace hincapié en el hecho que, mientras el público pide más investigación y más servicios médicos, no se aprecia aun suficientemente la importancia primordial de las instituciones médicas para lograr esos objetivos. Las Escuelas de Medicina de este país no han sido aun capaces de ponerse a la altura del progreso científico debido a que la acumulación de nuevos conocimientos importantes para la Medicina y el coste de la Educa-

ción médica están aumentando con demasiada rapidez. La Educación Médica se encuentra por ello ante problemas tremendos. Se ha llegado a un punto en que las dificultades causadas por esa expansión inmensa de los conocimientos ya no pueden resolverse simplemente mediante el aumento de las materias de enseñanza y la prolongación del período de estudios. Se trata ahora de introducir una Educación Médica que transforme los hábitos de pensar y los conceptos de los estudiantes de tal modo que éstos no cesen nunca de ser investigadores, al mismo tiempo que médicos. En cuanto a los problemas financieros con los cuales se enfrentan las Escuelas de Medicina, el Dr. Darley expresa su aprecio por la ayuda que ofrece, desde hace 10 años, el *National Fund for Medical Education* que ha contribuido, en mucho, a facilitar a esas instituciones la difícil tarea de exploración de las nuevas fronteras de la Ciencia Médica, sin que se aminore por ello la independencia y libertad de acción de las instituciones subvencionadas. Y en estos tiempos de rápido cambio, agrega el orador, "la Educación ha de poseer tanto dólares como libertad".

\* \* \*

Separatas de este artículo, en español, podrán obtenerse si son solicitadas por un minimum de 25 lectores.

# Teaching in all Four Years of Medical School by a Single Instructor

THEODORE H. NOEHREN

**R**ECENT DEVELOPMENTS in the medical sciences, both clinical and preclinical have led to progressive segmentation of the curriculum. Unfortunately, this segmentation is reflected in the medical students who experience difficulty in coordinating the many disciplines toward the practice of the profession. A good deal of effort has been expended in recent years to find some method of reuniting or correlating these diverging segments. It has been my privilege to take part in one of these attempts which is not new in other branches of education but apparently unique in the current medical school setting.

## One physician

The principle on which the present program has been based is that if a class of medical students could identify itself with at least one physician who teaches them through their four years of study, he might personify for them in some measure the practical goal of their studies and help them fit the parts into the whole. The situation is, perhaps, analogous to the patient who prefers a "family" physician capable of making an inte-

grated pattern out of his several difficulties.

Real correlation between the basic and clinical sciences in medical education requires more than the usual exchange of men and data on a sort of lend-lease basis. Integration is scarcely personified by the customary visit of an "outsider" from the other world of practice, basic or clinical. The very necessity of having this exchange epitomizes the dichotomy of medical education, though it does, at the same time, help to bridge the gap. Combined conferences and correlation courses help. They too, however, dramatize the "two sides" by the nature of their structure, with the representatives of both exchanging views. The student for whom integration is urged and needed is offered no single example of such integration with which he can identify himself as a scientist and physician. To be sure, he comes in contact with men in each of the fields in whom integration is very ably represented, but in the end he must discover this for himself and it is missed by some.

## The Program

It has been my privilege during the past four years to take part in an unusual experiment designed to encourage integration of the various

Dr. Noehren is assistant professor of medicine and a Markle Scholar at the University of Buffalo School of Medicine, the Buffalo General Hospital.

segments of the medical curriculum. As a graduate physician I joined the class of 1956 in its first year and have taught consecutively in their four years of medical education. The original concept envisioned this special instructor as one who would "grow" with the class. This sharing in the metamorphosis would give both the class and the instructor a continuity and progressive correlation which would increase for each the perspective for the other. I acted as an instructor, mostly in the laboratory for the first two years, and then on the wards and in the outpatient department as an attending physician during the clinical years.

Specifically, I worked with the class during their first year as instructor in the anatomy laboratory three mornings a week, in physiology two afternoons a week, and served as preceptor to a group of five students throughout the year in a course known as Introduction to Medicine. During the second year, one morning a week was spent in the gross pathology laboratory and one afternoon in teaching physical diagnosis. In addition, there was a variety of other contacts in conferences on applied physiology, in formal presentations to the class under physical diagnosis, and with the students who worked as research assistants during the summer vacation period. In the third year, I was responsible for the organization and functioning of the clerkship program at one of the major teaching hospitals and served on the ward service as the attending physician for a period of a month. There were also numerous hospital clinical conferences which both the students and myself attended, and these supplied common points of interest.

Several of the students have also come to me as patients and been under my care for short periods. Fi-

nally, and perhaps as important as any of the other contacts, have been the social gatherings to which my wife and I have been most graciously invited. Unfortunately, it has not been possible to do justice to all the opportunities in this area, which include weddings, class parties, picnics, meetings of the student wives, etc. It was of great value to have my wife help me with this. There is really no end to the possibilities of the contacts with the members of a class of medical students and ample opportunities have been present to become acquainted with them on a variety of levels. For the individual instructor this is an opportunity to share again in student experiences, an opportunity our current large programs make progressively more inaccessible. Incidentally, it has also been a very effective way of becoming acquainted with the various departments of the school, and realizing new values in the basic sciences and clinical problems as well.

#### Personal relationships

It has been my privilege to follow the more personal developments of various members of the class. Two of the students, for example, courted in the anatomy class, were married in physiology but, unfortunately, divorced in pathology. Problems of apartment, landlords and in-laws were shared in a very complimentary fashion. Inquiries for sources of medical care for members of the class and their families have been a constant source of exchange. The many other personal problems arising in a group of this sort, to say nothing of a rather steady banter of humorous anecdotes, have formed an important part of this association. Perhaps these constitute a basis for integration which we overlook in our medical teaching. The

good practicing physician whom we are trying to develop, spends a major portion of his medical practice as a "friend" in the myriad of problems faced by his patients. How to function as such is taught very unsatisfactorily in our present "scientific" curriculum. I like to feel that the time devoted to the personal problems was not wasted but was one method of integrating this side of medicine into their concept of themselves as good physicians.

In addition to these personal aspects, innumerable opportunities existed to give clinical meaning to their laboratory studies and to extend their perspective on the profession of medicine. It was easy for example, to stimulate interest in the details of gross and microscopic pathology by pointing out that these were the clinical application of anatomy, physiology and biochemistry and were closely related to the signs and symptoms which living patients show. Illnesses of the students themselves or of their acquaintances also provided points of reference for discussions of numerous aspects of their studies. If one is aware of the need for relating current studies to what has gone before and what is to come, ample opportunities are always present.

The class soon learned, in my case, that complete integration within a single physician was, in actuality, impossible. After the first few sessions in anatomy they readily realized that my knowledge of the subject lacked more than it provided. However, we used the book together, and perhaps my embarrassing ignorance in the field was reassuring to some in the class who were suffering acutely from their own difficulties at the time. In the end we were able to relate much of the anatomy to other aspects of medicine with which we were familiar, but a lot of time was spent discussing their personal prob-

lems and their adjustment to the learning methods required by the medical curriculum.

### **Student metamorphosis**

As the class moved toward the clinical aspects of the educational program, my ability to answer their questions increased. Strangely enough, however, my feeling of closeness to the class decreased. This was partly due, perhaps, to the geographical separation inherent in our school and to the increasing number of men available and anxious to answer their questions. But it also seemed to be a reflection of their own increased security and confidence. It was gratifying to see how they progressed in this direction during the clinical clerkships of the third year. Whereas their questions were formerly those of neophytes addressed to a teacher, they now discussed medicine as an equal, contradicting, correcting and suggesting without hesitation. They no longer seemed to need the same support as in their earlier years.

This increased confidence, however, was not without its counterbalance. Several appeared to exchange friendly and sympathetic attitudes for factual knowledge and scientific coldness in their patient relationships. One student, for example, who had strong human and domestic interests and was empathic with members of the class, had by his fourth year, become completely organic in his interpretation of illness and overlooked the somatopsychic components. In a patient with peptic ulcer his suggestions in regard to diagnosis and treatment on ward rounds were based strictly on an organic concept and objective facts, though in other situations he showed aptitudes and concern for personal ingredients.



It is an impression, after watching this class for four years, that this change is not so much an imprint of the medical school (the external environment) as is generally thought. It seemed more logical to view this as a change in the internal environment, the student's concept of himself as he progresses. On entering medicine he sees himself as DOCTOR Brown, with all its Kildare concepts. Four years of medical school develops a Doctor BROWN with all the problems that realization involves. The M.D. degree, he gradually learns, is not quite the Aladdin's lamp he may have hoped for. It is this maturation of a fantasy into realistic terms which is not always a soothing experience. The realities of marriage, choosing an internship, and above all the inevitable modification in his concept of medicine as a science and a profession . . . these all may influence a student's outlook profoundly—even more than the structure of the external environment in which he goes through this metamorphosis. To be sure, this internal environment is intimately related to the external, for the areas of congenial academic atmosphere were obviously the best culture media for the students in this group.

It was also apparent that much of medical education still is conducted in terms of "pouring" knowledge from one person into another, like water from the pitcher into glasses. This concept seriously overlooks the internal environment just mentioned. Since so much of the final product is determined by the individual potentialities of the student, these must be developed by the teacher with an approach appropriate for the class as individuals. Each student should be reached not by the dictaphone method, but by helping him to develop himself, the factual ma-

terial, and his own position in medicine as his profession . . . a technique that successful athletic coaches have been using for years.

### The failures

Some observations of those members of the class who had difficulties scholastically, and eventually had to repeat some of the work have been of interest. A disproportionate amount of my time in anatomy and physiology was spent talking with these few students. It became increasingly apparent as the year progressed that they were not doing well. For many this was their first taste of failure in life. Their difficulties and discouragements seemed to mount as the year progressed, and one of them sought psychiatric support. Little that I could say or do accomplished more than to temporize their disappointment, and, when they finally did fail and came to discuss it with me, I had little, unfortunately, in the way of constructive help to offer.

During the following year when they repeated the course a remarkable change in attitude was apparent. They had lost their "hurt" expressions and did not care to discuss their problems at such great length. One of them, in particular, exchanged his defensive attitude for a more aggressive approach. When asked about it, his actual answer was, "Well, they have done the worst they can do to me. Nothing more can be lost so I am doing it my way this time." He remarked on how much more he was getting out of the lectures . . . said, in fact, that in reviewing the previous year's notes, he found he had even copied the lecture material wrong. Many of his previous notes turned out to be inaccurate. This change in attitude seemed fairly



## *Teaching in All Four Years by a Single Instructor*

consistent throughout the group, though they gave different reasons for it. One had worked at a Veterans Hospital during the summer and said it dawned on him while working in one of the clinics that the material was not impossible and he was quite able to handle it. Another had worked as a clinical ward helper in a hospital for the summer and this too, seemed to help him find himself.

All but one of the repeating students did well and passed, (as has generally been the experience at this school). The one who did fail, it later turned out, had been courting a girl on weekends and midway through what was almost an engagement, was told she would marry another college student whom she had been dating in his absence. His classmates were adamant that his problem was entirely emotional.

It is significant, I feel, on the basis of my experience with this group, that these same men, with no change

in their mental ability, were able to do so much better one year than another. They all say it was not repeating the material that made the difference; their attitudes and emotional components played a significant part. And, strangely enough, many of them were willing to admit that in the end their misfortunes had beneficial aspects.

But these are all values that I obtained from this program of individual integration. The main purpose, student integration, cannot be assayed so easily, if at all. The class seemed enthusiastic though I am not in a position to judge adequately. Continuation of the program and more long-range impressions than are available at this point are necessary for accurate evaluation. It would seem very much worthwhile to continue the experiment for whatever it can offer in the integration of the medical curriculum.

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## **Cuatro años de estudios de Medicina con el mismo instructor**

Recientes desarrollos en las ciencias médicas, tanto en el campo preclínico como en el clínico, han ido produciendo una segmentación del *curriculum*, y ésta se refleja en las dificultades que tienen los estudiantes en coordinar las varias materias de enseñanza con vistas a su futura práctica médica. En los últimos años se ha tratado, en las Escuelas de Medicina, de encontrar métodos que sirviesen para correlacionar esos diversos segmentos. En el presente trabajo, el autor, Prof. del Colegio de Medicina y del Hospital de la Universidad de Buffalo, da un detallado informe sobre un tal experimento. El programa en cuestión se basa en la idea de que un mismo instructor que enseñase a una clase de estudiantes durante los 4 años de sus estudios, podría contribuir mucho a la integración de las diferentes materias enseñadas. El autor participó directamente en dicho experimento,

pues fué durante 4 años instructor de la clase de estudiantes que entraron a la Escuela en 1952. Además de enseñar Anatomía, Fisiología, Patología y Diagnóstico físico; y además de dirigir grupos de discusión y demostraciones didácticas y trabajar con los asistentes de investigación durante las vacaciones, organizó sus trabajos clínicos de tercer año en el Hospital, atendiendo él mismo durante un mes, como médico de servicio, junto con los estudiantes, a los pacientes de una Sala de Hospital. Según destaca el autor, desempeñaron un papel importante en el feliz desarrollo del programa los frecuentes y estrechos contactos personales y sociales del profesor con los estudiantes, durante todo el período de sus estudios en la Escuela. Tales relaciones, dice el autor, bien pueden constituir una de las bases para la "integración", pues una de las funciones, y no de las menos importantes, del "buen" médico—cuyo concepto se trata de formar en los estudiantes—, es la de ayudar a sus pacientes a resolver sus muchos y diversos problemas.

El profesor que acompaña a sus estudiantes durante los cuatro años de aprendizaje, se puede dar mejor que otro cuenta de las sucesivas "metamorfosis" que suelen tener lugar en ellos, en cuanto a sus intereses científicos, actitudes y conceptos, angustias y expectativas. En cierto modo, el profesor "crece" con ellos; aumenta su capacidad de satisfacer todas sus preguntas, y le resulta más fácil estimular el interés de sus alumnos por ciertos aspectos de la ciencia, lo cual, a su vez, facilita la tarea de la integración de las diversas materias de estu-

dio. El autor advierte, sin embargo, que, aunque los estudiantes mismos han mostrado notable y consistente entusiasmo por el método descrito, durante esos 4 años, él no se halla aun capacitado para evaluar adecuadamente sus resultados, ya que para ello se necesitaría la continuación del programa durante más tiempo.

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Separatas de este artículo, en español, podrán obtenerse si son solicitadas por un minimum de 25 lectores.

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## The Postman Rings Twice

According to a recent survey reported by the *New England Journal of Medicine*, it is estimated that the typical busy practitioner received this year nearly 500 more mailings than in the preceding 12-month period, bringing the total to nearly 4500. Ninety per cent was from pharmaceutical houses, two per cent consisted of solicitations for medical books and journal subscriptions, one per cent was for medical equipment and instruments and seven per cent was miscellaneous, including all mail of a nonmedical nature.

# British Medical Education and the General Medical Council

DAVID C. SINCLAIR

**I**N AN AGE of educational experiment, the medical schools of Great Britain remain for the most part stolidly conservative. This conservatism, which is sometimes stigmatized as lack of enterprise, is in great part determined by the influence of the General Medical Council, which was created in 1858, with Sir Benjamin Brodie as its first president. At that time, as today, many different universities awarded medical degrees, and several other bodies, such as the Society of Apothecaries and the Royal Colleges of Physicians and Surgeons, granted "licenses" to practise medicine. It was in order to ensure a common minimum standard of education among the products of these diverse institutions that the Medical Act of 1858 introduced the Medical Register, and charged the General Medical Council with the responsibility of deciding whose names should be placed upon it. The register, which is still the means of segregating the sheep from the goats in the British medical profession, includes only the names of those who have satisfied the council of their fitness to practise medicine. Unregistered practitioners face many disabilities; thus they are debarred from holding appointments in the public service, they cannot sign legally valid certificates, and they are unable to

recover medical charges in a court of law.

The council does not perform its task by conducting qualifying examinations or tests; it merely decides whether or not the education provided by a given institution is satisfactory. If the verdict is favorable, the possession of a degree or license from that institution automatically allows the individual a place on the register, though the council may subsequently direct the register to erase his name should he be guilty of professional misconduct.

## Composition of Council

If the council is to come to a reasoned decision as to the value of a particular course of education it must clearly be adequately and broadly informed. Its composition is mixed. There are 27 representatives of the universities and medical corporations, seven direct representatives elected by the medical profession as a whole, and five representatives nominated by the Crown<sup>1</sup>. The council is empowered by the Act of 1858 to require information from the various medical schools as to their courses of study and examinations, the ages at which such courses are undertaken, and the general requisites for obtaining qualification. The council has always been able to send inspectors to attend and report on all or any of the professional examinations<sup>2</sup> set

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by a given school, but by a curious anomaly it was not until the Medical Act of 1950 that it had power to inspect the school itself and its courses of instruction as distinct from its examinations. Information on such matters prior to this date was therefore always obtained on paper rather than by inspection.

The Act of 1858 states that if the council is not satisfied that the courses and examinations of any school are such as to secure for its graduates the possession of "the requisite knowledge and skill for the efficient practice of their profession" the council may make a representation to the Privy Council. The Privy Council may then order that any qualifications granted by the school no longer confer any right to registration until such time as the necessary improvements are effected. The Medical Act of 1886 carries this a little further by stipulating that if the council is not satisfied with the standard of the final professional examinations it *must* so report—"the standard of proficiency required . . . must be such as sufficiently to guarantee the possession of the knowledge and skill requisite for the efficient practice of medicine, of surgery, and of midwifery."

It is therefore clear that the council has a considerable burden of responsibility, and that it is provided with the necessary teeth to enforce its will. It is a severe sanction to deny the products of a medical school the benefits of registration. Nevertheless, from the beginning the council has steadfastly disclaimed any idea of enforcing uniformity among British medical schools. Instead, it has adopted the expedient of issuing from time to time certain "recommendations" in relation to the medical curriculum, and these "are directed to the maintenance of uni-

formity of standard to this extent only that they indicate a minimum below which no particular curriculum should be permitted to fall.<sup>3</sup>" The wholly admirable intention has been to allow the various medical schools freedom of action to develop their own ideas, providing only that the minimum requirements of the council are met. However, with the passage of time the "recommendations" have become increasingly detailed and have become invested with something of the power of law. No medical school which conscientiously fulfills the current recommendations, which were issued in 1947, has much scope for the adoption of any experimental ideas. The recommendations lay down in general terms "in what subjects, in what sequence, and for how long, students should be instructed in order to reach a standard of proficiency which the council . . . will for the time being regard as sufficient." In addition, as has been pointed out, the council has control over the timing and content of the professional examinations, and this in itself imposes a very considerable measure of uniformity on the medical courses of different institutions.

#### Not conducive to experimentation

The situation is thus not conducive to educational experimentation. It is unlikely that any reformed curriculum will be pressed upon all medical schools simultaneously by a drastic alteration in the council's recommendations. The council is essentially a conservative body composed of elder statesmen and is recruited largely from those who have seen much service since they qualified.<sup>4</sup> Age frequently confers wisdom, but it is not so often characterized by the enterprise and adaptability needed for radical innovations. Nor indeed would

it be wise to undertake such innovations without some kind of pilot experiment. Yet if any individual medical school were to try such an experiment it would almost certainly fall foul of the present recommendations, particularly as they affect the professional examinations. For this reason most schools are reluctant to attempt any extensive reconstruction of their present educational methods. There are, of course, experiments going on within the framework of the recommendations, such as the integration of the preclinical teaching at Birmingham,<sup>5</sup> but the scope of these is of necessity limited.

#### **Revision needed**

The time has now come for the council to make another of its periodic revisions of the recommendations, and it has invited observations and comment from a number of interested parties—the medical schools, the licensing bodies, the examining boards, the British Medical Association, and the British Medical Students' Association. The Committee on Medical Education of the British Medical Association has published its view<sup>6</sup> that the recommendations are too rigid and often too detailed; the committee considers that little can be done to implement the ideas expressed and accepted at the First World Conference on Medical Education until these recommendations cease to be regarded as regulations. They suggest that the council should drop the present recommendation that there should be a "transitional period of study" between the pre-clinical and the clinical curricula, and point out that the modern idea that the student should be brought into contact with the patient as early as possible in his training cannot be put into effect under the existing recom-

mendations. They also propose that the council should encourage experiment by publishing annually reports of experiments in medical teaching made in individual medical schools.

The Medical Teaching Committee of the Royal College of Physicians<sup>7, 8</sup> makes a number of similar points and a much more sweeping suggestion. The committee proposes that the council should completely relax the control it exercises by means of the recommendations, and substitute control by inspection—such, for example, as is practiced by the Ministry of Education in secondary schools. This idea is of necessity novel, since before 1950 the council had no right to inspect medical schools. The committee points out that Britain is in a particularly favourable position to try experimental curricula, for there are many fairly small medical schools serving diverse populations; appended to its memorandum<sup>7</sup> are several suggestions which might be applied to an experimental curriculum. These suggestions follow lines which have become fairly familiar in America and (on paper) in Britain, and it is perhaps unnecessary to recapitulate their details; the important thing is that if the Council accepted the idea of control by inspection at least some of these ideas could be put into practice by at least some of the British medical schools. Control by inspection would be more fluid than the present system, and much would depend on the calibre of the inspectors; it is not always easy to visit a strange medical school and form a valid opinion on what is proceeding within it. Examples of alarming misconceptions arising from such visitations will be familiar to many people. There would certainly be many difficulties in the early stages, while the experimental curricula were getting under way, and perhaps among the

most troublesome would be the organization and content of the examinations. Nevertheless, if something of this kind is not done it will be difficult to find a way out of the static condition in which British medical education finds itself at the moment.

The comments of other bodies on the current recommendations are not yet available, but it is unlikely that they will contain a more radical solution to the problem. The council is shortly due to meet, and its decisions will come into force in 1957. Upon them will depend the form of British medical education for the next 10 years.

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#### **El Consejo General de Medicina y la Educación Médica en Inglaterra**

En este trabajo se discute el conservatismo prevalente en las Escuelas de Medicina de la Gran Bretaña, y se atribuye la responsabilidad principal de ello al control que el Consejo General de Medicina (*General Medical Council*, creado en 1858) ejerce, en ese país, sobre la Educación Médica. Las decisiones y actitudes de dicho Cuerpo han sido frecuentemente objeto de críticas, sobre todo porque la rigidez y extremo conservatismo de los puntos de vista de sus miembros, así como los modos en que éstos ejercen su poder, han impedido grandemente el progreso de la Educación Médica, la cual sólo puede desarrollarse si hay libertad de llevar a cabo nuevos experimentos. Sin embargo, recientemente, con motivo de la próxima

revisión periódica de sus recomendaciones (las cuales solían equivaler a ley) el Consejo ha pedido hagan observaciones y comentarios críticos todos los organismos interesados, o sea, Escuelas de Medicina, Juntas de exámenes y licencias, la Asociación Médica Británica y la Asociación de Estudiantes de Medicina, y se espera que las críticas y sugerencias de éstos conducirán a una revisión más radical que en el pasado de la Educación Médica, sobre todo en lo que se refiere a la posibilidad de introducir nuevos programas experimentales en el *curriculum* de las Escuelas de Medicina.

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# Improving Teaching on Ambulant Patients

KERR L. WHITE AND WILLIAM L. FLEMING

NEW PATTERNS of medical care, and the rapidly changing role of the family physician has focused the attention of many medical schools on the problems of ambulant patient care and the challenges presented in terms of early diagnosis, disease prevention and health improvement. Established traditions of exemplary ward care and bedside teaching in most university hospitals permit scant attention to these newer aims and in crowded outpatient departments they are apt to be forgotten.

The expansion of the school of medicine at the University of North Carolina to a four year program in 1952 created new opportunities to meet these changing responsibilities. One development has centered around an ambulant patient teaching clinic in the North Carolina Memorial Hospital with which there now has been almost four years experience. In discussing this program and our efforts to improve teaching on ambulant patients, it is recognized that we are dealing with two of the *least* important elements in the learning process, the curriculum and the environment. The basic requirements for effective education continue to be well-informed, articulate and enthusiastic teachers and inquiring, intelligent

and adequately prepared students. Poor teaching is rarely improved by the best curriculum and superior teaching usually flourishes in any environment. Perhaps good teaching may be improved by providing appropriate situations in which there may be even better learning by students.

## "General Clinic"

Our General Clinic serves as something more than the traditional medical outpatient department. It is the "core" clinic of the public outpatient department, combining the usual teaching hospital's general medical and surgical clinics and with medical subspecialty clinics, lesser in number than customary, functioning as sections of the General Clinic rather than as separate clinics. It is staffed by full-time members and fellows of the departments of medicine, preventive medicine, and psychiatry, several part-time internists and family physicians and provides some closely associated teaching by members of the departments of surgery and pediatrics. On-the-spot screening or emergency consultations are available daily from the departments of gynecology and obstetrics, surgery and psychiatry. A sociologist, a medical social worker, a part-time vocational rehabilitation counsellor, a public health nurse and an executive secretary are other participants in the clinic.

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Table I

**Student Schedule on Day a New Patient is Assigned**

<b>8-9 A. M.</b>	<b>Daily conferences:</b> Medical emergencies, history taking, EKG and X-ray interpretation, clinical physiological conferences, home health service, natural history and preventive aspects of disease, pediatrics, ENT, and ophthalmology.
<b>9-11 A. M.</b>	<b>New patient work-up.</b>
<b>11-12:30 P. M.</b>	<b>Student-preceptor conference on new patient.</b>
<b>2-5 P. M.</b>	<b>Screening consultations and consultations in medical subspecialty sections on new patient.</b>

**Student rotation**

Groups of 20 senior students spend 14 weeks in the General Clinic on a combined clerkship in medicine and preventive medicine, closely coordinated with a six-week rotation in the Pediatric clinic. Preparatory experience in the junior year includes 14 weeks both on medicine and surgery and seven weeks on psychiatry and pediatrics, and 20 exercises in preventive medicine. A "Clinical Introduction" course for freshmen is given by the departments of psychiatry and preventive medicine, and the sophomores have lectures and small-group exercises in medical examinations, laboratory medicine, psychiatry and epidemiology.

The principal focus of each student during this senior clerkship is on the care of about 20 "new" patients referred for diagnosis and treatment to the General Clinic from all parts of North Carolina, a predominantly

rural state. Each student, serving as the physician, works up a new patient every third morning with an individual preceptor acting as his advisor for that patient and together they see the patient on several subsequent visits and possibly over much or most of the 20-week period. After these follow-up visits the patient is referred back to his family physician unless the problem is complicated, in which case he may be followed periodically in a subspecialty section. A series of morning teaching conferences, home health service, participation in the tumor and well-baby clinics, and assignments to the subspecialty sections round out the program. Table I is a condensed schedule of activities on the day a student works up a new patient and Table II is a schedule of activities on which return patients are seen.

Table II

**Student Schedule on Day Return Patients are Seen**

<b>8-9 A. M.</b>	<b>Daily conferences.</b>
<b>9-10 A. M.</b>	<b>Return patients.</b>
<b>10-10:30 A. M.</b>	<b>Conferences on Return Patients with original preceptors.</b>
<b>10:30-12:30 P. M.</b>	<b>Teaching rounds (six days) including tumor clinic (one day) and rounds on hospitalized patients (one day).</b>
<b>2-5 P. M.</b>	<b>Subspecialty assignments: Neurology, gastrointestinal, metabolism, dermatology, allergy, seizure, chest and cardiac sections.</b>

### **Clinical unknowns**

The "new" patients assigned to the students represent "clinical unknowns" which challenge their curiosity and capacities in a way that is less frequently possible on the wards. In the clinic, letters from referring physicians and other information are withheld until after the student has completed his work-up. By contrast, hospitalized patients usually are "labelled" either by disease or specialty on the basis of previous work-ups by the house staff or other information from the chart. "Old" or "return" patients who regularly attend specialty clinics rarely present the same opportunities for students to develop their diagnostic skills and an integrated approach to patient care as do undiagnosed ambulant patients. Because of the long distance patients travel to our General Clinic, careful coordination is required by a Fellow in Medicine in arranging appointments and allocating patients. He also gives considerable thought to balancing each student's experience with different types of illness. We believe this effort to provide new "unknown" patients and to exercise some supervision over purely random assignments has been well directed.

In teaching on these ambulant patients we place considerable emphasis on differential diagnosis of the early manifestations of disease and a comprehensive approach to the frequently amorphous symptomatology of the "unlabelled" patient. Syndrome diagnosis of structural disease will continue to occupy an essential place in medical teaching, but frequently a broader biological and ecological approach to health and illness can be developed more readily with ambulant patients who are not too far removed from their natural habitats. In addition to discussing the patho-

logic physiology and the psychopathology of early signs and symptoms, the students have ample opportunities for observing more advanced disease processes and for discussing them with their preceptors and on formal clinic rounds with the attending physician. On Saturday mornings the group makes hospital rounds to visit the patients they have admitted during the week. Five formal clinical physiological conferences presented by groups of three students provide additional experience in differential diagnosis. A member of one of the basic science departments frequently participates and there usually is lively discussion by all the students. A series of lecture-demonstrations on electrocardiographic and X-ray interpretations completes the program in this area.

### **Adequate time**

Considerable thought has been given to providing adequate time for reviewing each patient's problems with the student. Two hours, starting at 9 A.M., are available for working up each new patient, and at 11 A.M. the student meets an assigned preceptor and for the next hour and a half they discuss the findings. The instructor then interviews and examines the patient and the plan of study and management is decided. Reading assignments are suggested from a composite list prepared by members of the department of medicine, and an appointment is made for the patient, student and preceptor to meet again the following week, usually on the same day. During the afternoon of the first visit, the student may take his patient for a screening consultation or to one of the subspecialty sections, but usually the preliminary studies are completed first, so that the student learns to use

consultants to his own and the patient's maximum advantage. Students and their preceptors usually see their patients twice and several follow-up visits are encouraged, so that many patients are seen for three or four visits, and a few are seen for five to seven visits. We believe that this continuity of student-patient relationship provides the student with opportunities to observe a larger segment of the natural history of disease, to elicit and evaluate new historical data, and to observe changes in signs, symptoms and behavior in the light of his growing knowledge of the disease process and the patient. This type of follow-up is rarely experienced during fragmentary contacts with hospitalized patients. Further opportunities for discussing the effects of "nonspecific" therapies and the physician-patient relationship are available during the conferences on history-taking and interviewing.

Arranging for investigative studies on a hospitalized patient is relatively uncomplicated in comparison to the equivalent study of an ambulant patient, particularly in a clinic such as ours, whose clientele is not restricted to an indigent urban population. Economic factors, distance to be travelled, preparation of the patient and sometimes uncertainty about the patient's clinical condition must all be considered. There is occasionally the risk that a hostile or frightened patient may not return for important studies. In the clinic, the preceptor shares the responsibility directly with the student and does not have the house staff to arrange the details of the patient's care. Although some preceptors seem less enthusiastic about this arrangement than others, the students appear to benefit from the close association with their instructors which it entails. Difficult as it often may be to plan the work-up

of an ambulant patient, the thought required and the problems encountered frequently point up the limitations to medical care imposed by economic and social factors. Students comment that in these situations they experience a facet of medicine whose existence had previously escaped them. Our arrangements for conducting studies on ambulant patients are less than ideal and we believe that they would be greatly improved by a dormitory where the patients could remain over-night to complete their studies without the need for expensive hospitalization.

#### Not all are ambulatory

Not all patients seen in the General Clinic can be treated on an ambulatory basis, and in order that some of the interesting unscheduled patients may be seen, two students are "on call" daily for a Screening Clinic where these patients are seen initially. In addition, students are fully responsible during the first 24 hours of hospitalization for any patients they admit from the clinic. All students follow their hospitalized patients as indicated and report on them periodically to their preceptors. A series of 10 seminars deals with some of the principal medical emergencies and has been one of the more successful teaching conferences. Conducted as a Socratic teaching exercise, discussion, based on previously assigned references, covers diagnosis, pathologic physiology and management.

One aim of our program has been the achievement of a reasonable, theoretical and practical balance between teaching a "general" approach to patients' health problems and teaching the particular content and skills of contemporary medicine and its subspecialties. To provide addi-

tional experience in the medical subspecialties students spend several afternoons of their rotation in each of these sections where they participate in the care of the more complicated patients being followed by these groups. There have occasionally been situations in which subspecialty sections seemed reluctant to encourage a student to follow his patient in the general section, and to restrict their own roles to those of consultants. However, as the participants in the different activities of the clinic became familiar with our over-all goals and as the number of patients in all areas increased, these misunderstandings have become much less frequent.

#### **Over-all prestige**

Considerable thought has been given to maintaining the over-all prestige of the General Clinic. The neglected status of outpatient teaching in some university hospitals is a product of many factors. Where a guild system of apprenticeship exists and long years of service in the outpatient departments must precede an appointment which permits the young physician to hospitalize his private patients, the outpatient clinic may be regarded as only a stepping stone to greater opportunities. Rapid advances in laboratory medicine, the necessity of hospitalizing many patients for study and the view that "good teaching material" consists primarily of very sick patients with abundant physical signs and laboratory abnormalities, all tended to diminish the status of outpatient services. In our General Clinic equality of status is provided by the daily teaching rounds which a senior member of the department conducts in the clinic on the same schedule as the ward visits. Each day one student presents his

new patient to the attending physician and all the students not otherwise occupied with their own patients. On one morning a week, the regular attending man is joined by the psychiatric consultant and combined rounds are made. On another morning, again on the same schedule as the ward visits a second attending man in the capacity of a consultant takes the rounds. In addition to the obvious advantages for the students, the daily rounds keep all of our medical staff in touch with the problems of ambulant patient care.

Because of their specialized knowledge and interest in the more complex aspects of disease processes, occasional teachers are said to be reluctant to teach on unlabelled ambulant patients. This attitude is as readily understandable among some consultants as it is disconcerting among younger representatives of the subspecialties. We believe that our program of clinic rounds has done much to make good teaching on ambulant patients a congenial and attractive experience, and that all the members of our department of medicine, representing a variety of interests, have been able to teach effectively in this setting. Although perhaps not always appreciated by the staff, the students derive many benefits from watching a gastroenterologist, a hematologist, or a psychiatrist discuss a patient whose difficulties may lie primarily in the cardiovascular or central nervous systems.

#### **Emphasis on preventive viewpoint**

The acute nature, severity, or complexity of the problems presented by hospitalized patients necessitate a major emphasis on diagnosis and treatment. With ambulant patients whose diseases are more often seen at earlier stages in their natural his-

tories, and whose problems are less demanding and disabling, opportunities are provided for discussing the preventive viewpoint and for observing the difficulties as well as the potentialities of this approach. During a series of 90-minute Saturday morning conferences on selected aspects of the natural history and prevention of disease, two students present data from assigned references for discussion by their colleagues, the clinic staff and usually a special guest. During a recent rotation the following topics were covered:

1. Present status of Salk vaccine
2. Peptic ulcer
3. Hemolytic streptococcal infections and their sequelae
4. Tobacco smoking and cancer
5. Obesity
6. Epilepsy
7. Syphilis
8. Arteriosclerosis
9. Hepatitis

#### Social and emotional problems

Clinicians frequently are perplexed when confronted with the emotional and socio-environmental components of illness. Whether we like it or not, the facts of life seem to include extensive morbidity associated directly with stressful life situations, adverse social influences and minor emotional disturbances. Ambulant patients appear to have more of these problems than hospitalized patients, because the structural features of their disease are less advanced or severe and hence their problems less concrete in the eyes of physicians whose dominant orientation is towards the organic component of illness. More time is available with ambulant patients for consideration of these influences and students and preceptors are able to integrate them into their concepts of disease and management. Instructors, including two psychiatrists well-trained in internal medicine, who are

interested and skilled in developing these facets of their patients' problems work regularly in the General Clinic and often gain acceptance for them in a way which is almost impossible by didactic lectures or exhortations. As part of the development in this area a limited Home Health Service provides each student with an indigent patient for care at home under the direction of the clinic staff. The complex socio-environmental as well as medical problems encountered with each patient as he is treated in the context of his home, family and community are discussed with all the students at a weekly conference.

#### Summary

In summary, our General Clinic program with ambulant patients attempts to teach a comprehensive concept of patient care which gives due emphasis to the patient, as well as his disease, to a broad clinical approach as well as to special knowledge, and to prevention as well as to diagnosis and management. We believe the following factors have contributed to the development of the program:

1. The organization of a broad general clinic for the diagnosis of referred ambulant medical and surgical patients, with a "core" clinic for new work-ups closely co-ordinated with fewer than the usual number of sub-specialty sections.
2. The assignment of "unlabelled" patients or "clinical unknowns" to the students who act as family physicians in caring for a wide spectrum of human illness.
3. The use of regular preceptors, most of whom are full time members of the departments of medicine, preventive medicine and psychiatry, interested in teaching an integrated

concept of medical care. In addition, the program provides student experience in working with medical consultants, referring physicians, and with the ancillary health services. Practice in summarizing each patient's findings in a letter to the referring physician helps the student to formulate his opinions about each patient.

4. Realistic recognition of the emotional and socio-environmental aspects of illness and the provision of adequate time and staff for their con-

sideration in the context of patient care both in the clinic and on the home health service.

5. Adequate provision for maintaining the status of the General Clinic with formal teaching rounds by senior members of the staff and a program of organized daily conferences.

In closing, the authors wish to acknowledge the generosity of the Commonwealth Fund in supporting the development of the teaching program in the General Clinic.

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### **Posibilidades de mejora en la enseñanza relacionada con pacientes ambulantes**

Nuevas formas en el tratamiento médico, así como los rápidos cambios que han tenido lugar en el papel que desempeña el "médico de familia", han dirigido la atención de muchas Escuelas de Medicina hacia los problemas creados en el tratamiento de pacientes ambulantes de Hospital, especialmente en lo que se refiere a diagnóstico, Medicina Preventiva y salubridad. El programa de enseñanza, de 4 años, que, con ayuda financiera del *Commonwealth Fund*, está funcionando desde 1952 en la Escuela de Medicina de la Univ. de North Carolina, y cuyo centro es una Clínica para pacientes ambulantes, ha ofrecido nuevas oportunidades en ese campo de enseñanza, las cuales se exponen detalladamente en el presente artículo. El propósito principal de dicha Clínica es enseñar a los estudiantes un concepto *comprehensivo* de la atención médica, el cual pone el énfasis en el paciente tanto como

en la enfermedad; en consideraciones clínicas amplias tanto como en los conocimientos específicos, y en la prevención tanto como en diagnóstico y tratamiento. En sus conclusiones, el autor destaca algunos factores que cree contribuyeron al feliz desarrollo de dicho programa, tales como la división de la Clínica para pacientes ambulantes en una sección general para diagnóstico de pacientes allí enviados y otra, más reducida, coordinada estrechamente con la primera, para casos especiales; el empleo regular de *preceptores*, miembros de los Departamentos de Medicina, Psiquiatría y Medicina Preventiva, interesados en enseñar un tratamiento médico *comprehensivo*; y medidas adecuadas para mantener el *status* de la Clínica general, tales como visitas formales, instructivas, por miembros de la Facultad médica, así como un programa de discusiones diarias.

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Separatas de este artículo, en español, podrán obtenerse si son solicitadas por un minimum de 25 lectores.



# Resistances Encountered in Teaching Psychiatry in Freshman and Sophomore Years

ROBERT A. MATHEWS AND CHARLES WATKINS

STUDENTS ATTENDING one of the older medical colleges of this country, which is located in the heart of a great city, reside in either fraternity houses or local hotels. On one occasion a strange battle took place between two groups of these students—those residing in the hotel and the occupants of a fraternity house across from it. The ammunition consisted of paper bags filled with water, which were hurled by the combatants into the windows of their adversaries' encampment. A large crowd was attracted by the commotion, and within a short time, traffic was blocked. As might be expected, the police intervened, and some 17 students were removed by the patrol wagon. The professor of surgery, being politically related, was called upon for help, and soon the students were released. But while they were being arraigned, the police sergeant in charge was heard to say, "If youse guys is da intellectuals, I'm glad I'm jist a cop!"

The fact that such a fracas could have occurred in the first place points up one of the problems confronting the teacher of psychiatry. It is to be expected that to these men, immature

enough to behave in such a manner in spite of being old enough to go to medical school, the presentation of complicated conceptions, abstractions, philosophical digressions and material emotionally pertinent to individual students would prove threatening and be resisted. Reinforcing the long period of dependency upon family or others, the medical student's main responsibility prior to enrollment in medical school, has been the successful feeding back of sufficient factual information to his professors to enable him to continue his educational career. He has not been well prepared during his premedical years for the tasks demanded by the department of psychiatry. As Alan Gregg<sup>1</sup> has pointed out, all education must be considered in terms of the maturity of the recipient, and this is especially important in psychiatric education. With his lack of experience, the student cannot see that the inclusive or comprehensive attitudes and procedures of psychiatry are necessary. Gregg believes that the presentation of this idea must be the first consideration of psychiatric teaching. It must be remembered that the medical school, itself, through its very methods of instruction, tends to foster some of the problems which will be mentioned here. Dean Vernon W. Lippard of Yale,<sup>2</sup> in a recent ar-

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ticle has indicated that although a college education has been generally accepted as a prerequisite for admission to a medical school, methods of instruction have, to a large extent, remained at the undergraduate level. In preparing candidates for the M.D. degree, we continue to label instruction "undergraduate medical education," and keep it at that level. Do we not often fail to take this into consideration?

### **What students think**

A group of first year residents in psychiatry was asked "What did you think about psychiatry as it was taught to you in your first and second years of medical school?" The most mature member of the group, a man certified in pediatrics and now planning to enter the field of child psychiatry, said, "First year students seem to want factual material; they can't deal with conceptions, and are bothered by theories; they struggle to find loopholes because the material presented stirs up personal problems; the student sees an omnipotent department which is dangerous, sees through him, and which threatens his defenses. The student sees psychiatry as identified with a branch of medicine which, in unsophisticated circles, still bears some social stigma. He fears to allow himself to identify with the psychiatrist or the psychiatric department. His most common and best defense is "This is a bunch of malarkey!"

In many instances the student is prejudiced against psychiatry, and this attitude is nourished by the common feeling of revulsion for mental illness, a subject matter foreign to his interests, with a strange vocabulary. In addition, the antagonism or indifference of older students, and a similar attitude on the part of many

older clinicians, strengthen this prejudice.

### **"Nothing concrete!"**

Another resident said, "Our professor gave us nothing that we could write down; there was nothing concrete to remember! We felt much more comfortable in the second year when we could memorize the definitions of mental mechanisms. This was fun because we could apply them to our classmates and occasionally to ourselves without being too disturbed!"

A third resident said "I got little out of my first year course in psychiatry. As we understood it, the department had the responsibility of teaching 'the art of medicine' and the doctor-patient relationship; it was kind of interesting, but didn't stir up any enthusiasm for psychiatry. It was only later, when I was exposed to psychosomatic problems, and a psychiatric consultant was available that I began to develop an interest in this field!"

Several senior medical students, while meeting with a member of the staff of the department of pediatrics and a clinical psychologist in a session devoted to normal child development, rather spontaneously discussed their reactions to psychiatry as presented in that particular institution. The group thought that the psychiatric curriculum was rather well organized, and said that for the most part it was interesting and valuable but felt that there was inconsistency in the expressed philosophy of the department that psychiatry be taught in the framework of comprehensive medicine. Rather, they thought, it is still taught primarily as a specialty. They were disappointed that they were not able to see clearly the place of psychiatric principles in

general practice, or as applied to other specialties. They felt that the material presented, in the first year in particular, was too theoretical, and they felt that they had not been able to make use of it satisfactorily.

The group was much more enthusiastic about the curriculum in the third and fourth years. The integration between the departments of psychiatry and pediatrics, in particular, brought to them much meaningful material. A certain amount of recent integration with the departments of medicine and surgery also was appreciated.

The students went on to state that their resistance to psychiatry in the preclinical years was to a degree accounted for by their so-called pre-medical education. They pointed out that there was little encouragement for premedical students to study psychology, sociology or philosophy, so that they entered medical school with little or no preparation for understanding the interaction of the human organism with human environment (ecology).

In contrast to the lack of training in the social sciences, histological and physical sciences have been stressed. This, they believe, tends to give medicine an impersonal and even non-personal cast at this early stage.

The first year curriculum, dealing with problems of normal development, was, in the eyes of these students identified as purely the concern of the psychiatrist, and not that of medicine, in a comprehensive sense. This, they seemed to think, is brought about not as the result of what is taught, but through its being taught exclusively by psychiatrists. In retrospect, these senior students felt that the material itself could hardly be evaluated by a freshman.

One student cited an instance in which he attempted, during a teach-

ing seminar with one of the junior staff members in the department of medicine, to introduce some psychiatric principles which he felt applied to the case in question; the instructor made the terse comment "This is a course of medicine. Leave that material in the psychiatric block!"

The views and opinions described here were brought out in the sixth session of a very free and permissive group meeting devoted to the general topic of psychologic principles in medical practice with children and their families.

#### The student himself

In addition to the lack of exposure of premedical students to classes in the social sciences, the student himself and his motivations to enter medical college cannot be ignored while we are considering resistances to the teaching of psychiatry.

It is well known that many students choose medicine as a career because of identification with some doctor member of their family, or with a beloved family physician; a successful surgeon, or some other medical person with whom he may have had close relationship. Until recently, there were not many psychiatrists with whom potential students could identify. Although a fair number of first and second year students express a verbal interest in human psychology, very few enter medical school with the intention of becoming psychiatrists. We can anticipate that this situation will be altered somewhat within the near future as psychiatry strengthens its place in medicine. I recall an incident which occurred during World War II, while Dr. Karl Menninger was addressing a group of 25 medical students in a fraternity house. He asked for a show of hands as to the specialties of their

choice. Ten of the students planned to become surgeons; 10 expected to become internists; one, a pediatrician; one, an obstetrician; one, a radiologist; one, a general practitioner, and one lone student had chosen psychiatry as a career. The latter student's father and uncle conducted a psychiatric institution.

Students entering medical school frequently have attended college in their home community or home state, and in many instances are not far removed from the morality of the nursery. Some have come from homes where psychiatry is looked upon as antagonistic to religious beliefs. This becomes obvious when certain theoretical concepts, which now seem to have fairly firm foundations in fact, are presented in the field of human growth and development, particularly when described in technical terms, cause sensitivities to be evoked and strong resistances engendered. We have noted with some interest that those students who protest most vehemently against particular concepts pertaining to sexual development frequently come to our attention because of their related emotional problems.

#### **Upperclassmen set pattern**

It has also been our observation that upperclassmen commonly set the pattern for the attitudes of the lower classmen. If resistant attitudes have been developed through the presentation of inappropriate material, or by the inappropriate presentation of appropriate material in a particular first or second year class, it can be anticipated that there will be a three- or four-year lag with little change in attitude, even though a drastic change in curriculum and personnel has taken place. We are all now keenly aware of the need to have

the first and second year's teaching covered by the most mature and skillful staff members. Complex, theoretical material must of necessity be translated into thoroughly understandable and acceptable terms. A skillful teacher must be a skillful translator, and must be able to speak the psychiatric language in a dozen different tongues. He often has to teach at two or three different levels when giving instructions to a single class; in this regard, the situation varies in different schools. The independent college, with no geographical restrictions, is apt to have an intellectually more sophisticated and adequate group of students, but from a wider range of cultural backgrounds. It can be expected that in the state schools, students will range in intellect from brilliant, to mediocre, to the less endowed who come from homes of somewhat more homogenous cultural patterns.

#### **Terminology "ill-chosen"**

The terminology used in psychiatry has, in some instances, been ill-chosen. But many of the terms we now employ have been accepted in the common vernacular—unfortunately so, it would seem, because they no longer seem to carry scientific validity. The terms: conflict, complex, resistance, repression, inferiority, insecurity, immaturity, hostility, are now so carelessly tossed about by the writer of allegedly psychologically oriented novels, or the sophisticated or unsophisticated layman, as to have lost much of their basic strength. For the most part, the student seems to accept the useful terminology employed by the psychiatrist. But he is still resistant to and confused by such terms as: orality, anal sadistic impulses; even the 'Oed-

ipal situation' proves troublesome at times.

Theoretical constructs, too readily accepted by psychiatrists and passed on in their teaching, are often conducive to the development of resistance. This has been succinctly pointed out by Cleckley and Thigpen<sup>3</sup> in their recently published article: "The Dynamics of Illusion." We are constantly being tyrannized by concepts and phrases, certain people riding on the bandwagon of the phrase; others being destroyed by it. Psychiatry should be careful to avoid being tyrannized by certain conceptions which have been too readily accepted as having scientific validity.

So, obviously the language, terminology and conceptualizations of psychiatry are at first confusing to the medical student who, with rare exception, has familiarity with only didactic teaching and concrete learning and who feels uncomfortable in the field of abstractions. More thought must be given to the question of how and when to present the various psychopathologic reaction types. It is generally considered advisable to begin the course in psychiatry by covering the various aspects of normal personality growth and development. But there is a difference of opinion regarding whether the next step in teaching should be the consideration of minor psychopathologies rather than grosser deviations from normal. Not infrequently the medical student is resistant to the recognition of minor psychopathology, which may be due to the fact that he associates such conditions with his own problems. The same student may readily recognize and deal with gross psychopathologic conditions without being disturbed.

Before we leave the matter of terminology and language, it should be mentioned that psychiatrists in

the same department of psychiatry frequently do not speak the same language; so it becomes an important function of the head of the department to see that these language difficulties are overcome. How disturbing this must be to the already confused student.

As previously stated, the attitude of the student toward the psychiatric patient, the man out of control, is a reflection of the student's fear of his own hostility. The psychiatrist and the psychiatric department are identified with the patient, symbolizing the student's own dangerous self.

#### Insufficient time

With rare exception, insufficient time is devoted to the teaching of the psychological factors in medical practice in the first and second years. This, in itself, creates an illusion in the mind of the student that psychiatry is unimportant—a minor subject; hence, he cannot be bothered to cover reading assignments, if any, or to attend more than a small percentage of the sessions devoted to the subject. He must pass anatomy, physiology, biochemistry and pharmacology; he will hardly fail of promotion by neglecting psychiatry.

Not long ago a second year student was required to repeat the year because he had failed to meet the necessary requirements in psychiatry. This had an astounding effect, causing reverberations throughout the school; but it actually produced some favorable repercussions, too, for such a thing had been unheard of up to that time.

Only recently has psychiatry had the enterprise and temerity to encroach upon the curriculum hours cherished by those long-established and indomitable departments which have traditionally overshadowed and



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overawed the first two years. The fact that psychiatry has gained a place in the curriculum of the first and second years is indeed a noteworthy achievement. The suggestion of Dr. Norman Cameron<sup>4</sup> that a department of human ecology be established as an integral part of the preclinical training is not to be ignored. In any event, other disciplines must be brought into the teaching program if the old resistances are to be satisfactorily broken down.

### **Both clinical and preclinical**

The fact that a department of psychiatry is confronted with the task of teaching as both a preclinical science and as a clinical endeavour creates problems. Most psychiatrists have been schooled in the clinical field and have not learned how to present academic material at a preclinical level. The subject matter presented is too abstract and may be in conflict with that taught by the long-established basic sciences specialties. Also, resistance is met on the part of the clinical departments to the introduction of material which they feel is by tradition theirs to give. Since psychiatry sends its pseudopodia into all the regions encompassed by the medical curriculum, it must be seen by members of the faculty of other departments as a creeping, infiltrating menace, which encroaches on long-established prerogatives. Since the department of psychiatry must have a large staff in order to do the job correctly, the dean, sooner or later, builds up resistance to the request for more men; more women; more rooms; more equipment, and, most troublesome of all, more money.

### **Dual appointments**

There is the fear of the develop-

ment of a superstructure within the medical college, which might eclipse other more anciently accepted major departments. It might be that we should give more thought to this problem; several possible solutions come to mind, one being that it is certainly not necessary that all psychiatrists have their major appointment in the department of psychiatry, but may have dual appointments. It might be advisable, as in some colleges, to have a psychiatrist on the pediatrics staff, in the department of medicine, department of public health and preventive medicine, the department of obstetrics and gynecology, or even in the department of ophthalmology.

We still meet resistance on the part of older, psychiatrically un-oriented physicians who fear that emphasis on the teaching of psychiatry is dangerous to the developing student. One such staff member remarked "But look, Doctor, if you teach this student that many cases of abdominal pain are of emotional origin, he may become careless and miss a red-hot appendix!" The countering remarks were "Possibly it might be better for humanity if an occasional red-hot appendix were not diagnosed than to have one-hundred bellyaches iatrogenically crystallized into chronic neuroses! Furthermore, we are convinced that more effective teaching of psychological principles materially reduces the incidence of erroneous diagnoses!" Needless to say he was not convinced!

Again, the natural alteration in psychological function is so slow that changes cannot be studied in their entirety.

One of the chief aims of an effective department of psychiatry is to help produce good doctors; to train the student to see the patient as a



person, the product of his environment, whose reaction to illness is based on his own personality, and whose personality is influenced by the illness. Although the principles taught by the department of psychiatry are basic and apply equally to all clinical specialties, occasionally other specialists fail to recognize this and resent what they interpret as an implication that there are deficiencies in the teaching of their particular specialty. Not only is ill feeling thus engendered among the staff, but there is the all too prevalent tendency for departments to become competitive for supremacy.

### Summary

Premedical education seldom prepares a student for the study of psychiatry, even if he has had some courses in psychology. Some departments of psychology still offer courses based only on animal experimentation, or the study of isolated functions in human beings. This narrow approach does not form a good background for the study of man in his environment, and occasionally causes the student who is psychologically oriented to reject medically structured psychological teaching and application.

The student himself seldom comes to the medical school with the expectation of becoming a psychiatrist, nor has he even the vaguest notion of what psychiatry encompasses. His identification has usually been with a general practitioner, or a specialist in some other branch of medicine.

The traditional premedical curriculum is heavily weighted toward the physical sciences. As Dr. David Wilson<sup>6</sup> said, "It cadaverizes him!" In contrast to the physical sciences, the methods of preclinical psychiatry appear vague, inexact and unscientific.

Furthermore, the present curriculum leaves little room for the introduction of adequate preclinical training in medical psychology, which should certainly include a study of normal and abnormal aspects of physiologic function, both the intra- and interpersonal aspects.

Courses in medical psychology are likely to engender more anxiety in the student than that created by other courses offered in the preclinical years. Such training, if adequate, would provide the introduction of the student to patients and their families. This creates the problem of asking that other departments surrender time which is held sacred. As pointed out by G. W. Pickering<sup>7</sup> writing on the DISORDERS of CONTEMPORARY SOCIETY and THEIR IMPACT on MEDICINE, the 'Fragmentation of Knowledge,' our methods of teaching medicine today expose the student to a great variety of old and new subjects while little consideration is given to him as an individual.

"The other local symptoms of this disorder is the steady addition to the medical curriculum of new subjects, each presided over by an autonomous professor. This process is, of course, necessary for the growth of knowledge. But, unfortunately, it tends to happen, in our country at least, that each professor feels it his duty to his subject to see that sufficient hours are allocated to it in the curriculum and that his subject has a separate examination in which the student must pass before he is allowed to leave that department. In my more detached moments, I see these worthy gentlemen, each determined to exact his pound of flesh, like a flock of vultures descending on the student, until only the bare bones are left. And I sometimes feel when I listen to these eminent scientists that their arguments are all perfectly valid, except that they have forgotten one thing—that the subject of their improving exercises is a living, feeling, and, we hope, thinking, human being whose capacity to take intellectual punishment is extremely lim-

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ited. Nowadays, be it in medicine, be it in education, be it in political reform, there seems to be a tendency to forget the individual."

Medical psychology can be studied effectively only in the living subject; thus, the student must be able to recognize and handle the material in a dynamic situation, although there may be little "to get one's teeth into!" The increase in knowledge which is taking place is so often poorly recognized that the student becomes pessimistic. He frequently feels that he is learning nothing and his time is being wasted.

The fact that psychiatry is a clinical specialty tends to create a problem in teaching that part which is logically a preclinical subject; there is difficulty in teaching a clinical and preclinical specialty as one and the same. The establishment of a basic science department to teach the psychologic bases of medical practice might effectively overcome this difficulty. The student becomes upset, then resistant if the material is presented in such a way that too much anxiety is created. This often can cause the student to see himself in the symptoms and mechanisms which are being presented as evidence of psychopathology. If, however, teaching is centered on the broader problems dealing with the emotional aspects of the patient who is being cared for on the medical or surgical ward, psychiatry, as a specialty, may be neglected. Under such circumstances it is likely that fewer students will choose psychiatry as a career.

Psychiatry must resist the tendency to either apologize for what it cannot do, or to attempt to promise too much. There is need for more realistic evaluation of what is offered than has frequently been done in the past.

Finally, psychiatry, especially in the preclinical years, must retain a degree of objectivity which will counteract the tendency so often met in psychiatrists, the tendency to feel and to teach that there is only one right way. We must teach with a degree of humility consistent with scientific objectivity. Not that we must be scientists with our patients—heaven forbid! We should be able to examine ourselves and act accordingly.

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### **La resistencia de los estudiantes preclínicos a la enseñanza de la Psiquiatría**

El presente trabajo trata, principalmente, de

determinar las causas de la resistencia, tan común entre los estudiantes de Medicina de los años preclínicos, a los cursos de Psiquiatría y, en general, a todo este ramo de la Medicina. La educación pre-médica resulta insuficiente

como preparación de los estudiantes para el estudio de la Psiquiatría, sobre todo porque el *curriculum* ha sido orientado, excesivamente, hacia las ciencias físicas. Al entrar al Colegio de Medicina, los estudiantes, incluso los pocos que han tomado algún cursillo de Psicología (basado, en general, principalmente en experimentos con animales) no suelen tener la más remota idea de lo que significa Psiquiatría, y raro es el estudiante de primer año que tiene el propósito de hacerse psiquiatra. En muchos casos el estudiante siente repugnancia hacia las enfermedades mentales. El antagonismo o indiferencia de otros, especialmente viejos profesores clínicos, hacia la Psiquiatría, contribuye a fortalecer sus prejuicios. Además, los cursos de Psiquiatría tienden a crear en el nuevo estudiante más angustia que otros cursos de los años preclínicos por estar insuficientemente preparado para lo que de él se exige. El material que se presenta en estos cursos, remueve en él, a menudo, problemas íntimos y personales, y le obliga a enfrentarse con una ciencia omnipotente y peligrosa que parece ponerle al descubierto y amenazar sus defensas. Como, por otra parte, en ciertos círculos se considera que la "Psiquiatría" lleva aun consigo como un estigma social, el estudiante teme identificarse con el psiquiatra o con el De-

partamento de Psiquiatría. Además, el lenguaje, terminología y conceptos que se usan en los cursos de Psiquiatría durante los dos primeros años, contribuyen a la confusión del estudiante, que se encuentra, en esa etapa de su educación, poco confortable en el campo de las abstracciones. Su única defensa contra todo ello es un juicio despreciativo sobre todo lo que se le enseña relacionado con la Psiquiatría, juicio que podría resumirse en esta frase: "Todo eso no es sino una serie de pamplinas". Otro factor que interviene en la actitud de los estudiantes, es la necesidad de enseñar la Psiquiatría, en los dos primeros años, como materia preclínica y clínica a la vez, lo cual no deja de presentar serios problemas tanto para los instructores como para los estudiantes. Y es preciso insistir, al investigar las causas de la resistencia contra la Psiquiatría entre estudiantes preclínicos, que antagonismo contra esa enseñanza se halla a menudo también entre los más viejos profesores, que temen que demasiado énfasis en la Psiquiatría perjudique al desarrollo profesional de los estudiantes.

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Separatas de este artículo, en español, podrán obtenerse si son solicitadas por un minimum de 25 lectores.

## Editorials and Comments

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### **The Broadened Objective of the National Society for Medical Research**

THE National Society for Medical Research was founded to deal with a symptom of public ignorance and misunderstanding of medical and biological science—the antivivisection movement. At first the Society was occupied with the stop-gap protection of animal research against immediate threat of legal prohibition and general harassment. This effort was quickly successful, and soon the Society was able to turn its attention to long-range preventive measures.

The function of the Society is now regarded as an attack on the disease itself, of which antivivisection is only a symptom. The disease—ignorance and misunderstanding—is widespread and manifests itself in various ways. There is much public ignorance and apathy toward the needs and problems of scientific research. There is resistance to inoculation; there are militant anti-dissection and anti-experimentalist movements; there is superstition, quackery.

In its attack on this disease, the Society administers preventive medicine in two principal ways. First, the Society starts chain reactions of progressive public information activities by scientific organizations and institutions. For example, through the American College Public Relations Association the old blockade on the full, frank reporting of the methods of medical research was, for the most part, swept away. Thus use of animals in research ceased to be a secret. Another example: The Society has worked with the Federation of American Societies for Experimental Biology and a number of other organizations in the development of programs to expedite the reporting both to the public and to scientists in other fields of scientific developments.

The Society augments the chain-reaction public education efforts briefly mentioned above by producing publications, films, publicity, exhibits and other educational devices of its own. It is recognized that the Society's small budget makes it necessary to seek the great leverage of the chain-reaction approach whenever possible. Direct production serves only to fill some of the gaps.

A second important part of the Society's long range program is the development and propagation of positive action programs to advance research and teaching in biology and medicine. For example the Society formulated a model statute for the utilization of unwanted dogs and cats ordinarily killed in public dog pounds. Today 75 per cent of the medical schools in the United States receive their needed dogs and cats from this source.

The Society instigated the \$4,000,000 worth of libel suits against the Hearst press that helped end the Hearst campaign against experimental medicine.

The Society helped in the formation and early development of the Animal Care Panel, an organization devoted entirely to the exchange of technical information on the care of laboratory animals.

Under development right now is a new model anatomical materials law. The draft now in existence will be discussed with funeral directors, religious leaders and public-welfare officials. The final product is expected to meet the needs and have the approval of all of these affected groups. The Society, it should be explained, will not lobby for this model act. The Society will merely make it available for local action.

This, then is the pattern of the Society's work. Much had been accomplished but much more remains to be done. *Lester Dragstedt*, president National Society for Medical Research.

### **Attempts to Standardize the Form of the Internship**

*(A statement adopted by the Association of American Medical Colleges in Annual Session, November 13, 1956)*

A DEQUATELY supervised clinical experience during the first year following graduation from medical school is an integral part of the professional education and development of the physician.

In the past few years many different suggestions and recommendations have been made concerning the internship. Some have pointed to the conflict between the original concept as an educational experience and the growing demands for service of interns in providing patient care. Others have urged the abolition of the internship in all university teaching hospitals. Still others have advocated that all internships should be of the rotating type.

The Association of American Medical Colleges believes that the needs of the individual graduate and the resources and objectives of the individual hospitals will vary, and hence that the types and forms of the internship should vary. The Association therefore opposes any attempt by any group, governmental or private, to regiment the form of the internship.

### **The Future Need for Physicians**

*(A statement adopted by the Association of American Medical Colleges in Annual Session, November 13, 1956)*

THE changing nature of our industrial civilization, the increasing population, and the expanding knowledge revealed by research have, and will continue to have, a profound effect on our educational programs. It is a responsibility of the universities and of the professions to recognize and

meet the needs of society. There is no area in which this obligation is greater than in the field of the health sciences.

Within the next decade, the health care of the American people based on greater knowledge through research will require increasing numbers of all types of personnel including physicians. Further, many more young men and women will be seeking higher education and training in one of the health professions.

In the 10-year period (1945-46 to 1955-56) since the end of World War II the number of medical schools has increased from 77 to 82, the number of entering freshmen from 6,060 to 7,686, and the number of graduates from 5,655 to 6,485. Two new medical schools admitted a freshmen class for the first time in the Fall 1956. At least one other school is in process of formation and will admit its first class in 1959.

Although the Association of American Medical Colleges is proud of this record of the medical schools in responding to the needs of the post-war world, it also believes that more remains to be done. Medical education should be expanded further without impairment in the high quality which has been carefully built up in the United States since 1910. It is possible that some existing schools can, with new facilities and larger facilities, accept additional students, but the need will not be met completely in this manner. The larger contribution in number of students will come, as it has in the past, by the establishment of new schools.

On the other hand many schools have already expanded their enrollment without increase or improvement of physical plant. The 84th Congress authorized construction of research facilities, but as was pointed out by the President, this met only a part of the need to maintain the present quality of teaching for the present number of students.

The Association of American Medical Colleges urges its member institutions to survey their potentialities and capacities in the light of the future need for health personnel, and urges universities in large urban centers, now without a medical school to give serious consideration to the establishment of one.

The latent period between the determination to form a medical school and service of the graduates to the people is 8 to 14 years; 2 to 4 years to plan the program, construct the buildings, and secure a faculty; 4 years for medical education and 2 to 6 years for hospital training as an intern and resident. Hence, if we are to meet the problem, it should be borne in mind that plans made in 1956 are not for next year or the year after, but for the needs of the nation in 1964 to 1970.

A program of expansion will require large sums of money, both for capital expenditures and for operating expense. The Association of American Medical Colleges is dedicated to the preservation of joint and coordinated support of medical education from private and government sources and believes the American people are willing and able to back ventures which will mean better health and a happier life.



**Association of American Medical Colleges**

**MINUTES  
OF THE PROCEEDINGS**

**Sixty-Seventh Annual Meeting**

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DEAN F. SMILEY.....Secretary; Editor, *Medical Education*  
J. EDWIN FOSTER.....Director, Medical Audio-Visual Institute  
HELEN HOFER GEE.....Director of Research

**Sixty-Seventh Annual Meeting  
Association of American Medical Colleges**

**The Broadmoor, Colorado Springs, Colo.**

**November 12-13-14, 1956**

**MONDAY, NOVEMBER 12, 1956**

(President Robert A. Moore presiding)

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**TUESDAY, NOVEMBER 13, 1956**

(President Robert A. Moore presiding)

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*Monday, November 12, 1956*

#### INTRODUCTION OF NEW DEANS

The following new deans were introduced:

Ben Eiseman, University of Colorado School of Medicine (acting dean); Arthur P. Richardson, Emory University School of Medicine; Charles S. Cameron, Hahnemann Medical College; Wilfred W. Westerfeld, SUNY, Syracuse (acting dean); John B. Truslow, University of Texas School of Medicine, Galveston (director of medical center and dean of medicine); John W. Patterson, University of British Columbia Faculty of Medicine; William R. Willard, University of Kentucky School of Medicine; William F. Maloney, Medical College of Virginia (February 1, 1957).

New vice presidents or presidents:

R. Blackwell Smith Jr., president, Medical College of Virginia; Melvin Casberg, vice president in charge of medical affairs, University of Texas, Galveston; Herbert Eugene Longenecker, vice president in charge of the Chicago Professional Colleges, University of Illinois.

#### NOMINATING COMMITTEE

The nominating committee was named by President Robert A. Moore as follows: Dr. Stanley E. Dorst, chairman; Dr. Robert C. Berson; Dr. Coy C. Carpenter; Dr. Windsor C. Cutting; Dr. John McK. Mitchell; Dr. Norman B. Nelson; Dr. John D. Van Nuys.

#### REPORT TO THE MEMBERS FROM THE PRESIDENT

ROBERT A. MOORE, President:

In order that the members may have information concerning the business of the Association in advance of the annual meeting in Colorado Springs on November 12, 13 and 14, this report is made on the more important topics.

The report is not meant to replace the reports of the committees and of the staff of the Association but rather to sketch in broad strokes the problems and programs of the Association in terms of philosophy and trends. The report has not been reviewed by the other members

of the Council and hence must, until a meeting of the Council, stand as the opinion of the chairman only.

1. *Appointment of an Executive Director:* By far the most significant development of the past year was the creation of the office of executive director and the acceptance of the position by Dr. Ward Darley as of January 1, 1957.

For some time the Council has been concerned with the fact that our secretary, Dr. Dean F. Smiley, will retire on age in a few years and that the functions of the central office have increased greatly. Under the leadership of Dr. Lippard, president in 1954-55, the entire problem was reviewed and a special committee (Dr. Coggeshall, Dr. Lippard and Dr. Moore) appointed to seek out the most able man for the new post of executive director and secure his acceptance promptly so there would be an overlap before Dr. Smiley's retirement. The Association is indeed fortunate that a former president, Dr. Darley, has accepted.

The establishment of the office of executive director in no way influences the fundamental nature of the Association as a membership group with elected officers and an elected executive council. At the suggestion of Dr. Darley, the duties of the executive director have been outlined as those of the "executive officer" of a corporation. The council becomes the "board of directors" to discuss and establish policies with a president elected by the full membership as the senior officer of the corporation acting as chairman of the elected council.

2. *Increasing Recognition of Medical Education as a National Resource:* During the postwar years there has been fuller and fuller acceptance of medical research as a national resource with broad private and governmental support. In the past few years this acceptance has been increasingly extended to medical education. In 1956, three important national policy documents have mentioned the need for support of undergraduate medical education — the President's State of the Union message, the Republican Platform, and the Democratic Platform. During this same year, a

## Minutes of the 67th Annual Meeting

dean of a medical school, Dr. Coggeshall, has served with distinction as Special Assistant for Health to the Secretary of Health, Education and Welfare. Medical Education Week in 1956, sponsored by the Association with the National Fund for Medical Education, the American Medical Association, the Woman's Auxiliary of the AMA, and the Student AMA had the usual growing pains of a new venture. A good majority of deans indicated they approved the general idea, and your Council has therefore voted to join again with the others as a sponsor for a second Medical Education Week in April 1957. The orientation will be entirely educational, and not directly fund raising. Your Council believes that with this objective, a Medical Education Week can be a powerful instrument to bring increasing moral and material support to medical education at both the local and national level.

**3. Increasing Number of Medical Schools:** As we in the schools hope there will be an increasing recognition of medical education as a national resource, we in medical education and the universities have a reciprocal responsibility to meet the national needs. In the past year there have been important steps in this direction.

- a. Miami, in June 1956 graduated the first class in medicine.
- b. Albert Einstein, in September 1955 admitted the first class.
- c. Florida and Seton Hall, in September 1956 admitted the first class.
- d. Mississippi and Missouri, formerly two year schools, in 1955-56 extended into the third year and will graduate classes in 1957.
- e. Kentucky was authorized to establish a medical school.
- f. Several other universities have under consideration establishment of a medical school.

Although there may be some difference of opinion on whether or not the increase in schools and in enrollment meets or will meet the national need, there is clear evidence medical education is responding rapidly to the need. It is equally important that we do not outrun the supply of worthy and able premedical students.

Some figures on the number of persons granted a bachelor's degree, the number and per cent applying to medical school, and projections of these figures are pertinent to this problem and other future problems of the medical schools: (See below).

**4. Increasing Private Support of Operations of Medical Schools:** There have been many developments in the past few years pointing to an awareness and a meeting of the needs for preserving and improving the high quality of medical education in this country.

The National Fund for Medical Education under its sympathetic and understanding president, Sloan Colt, chairman of the Board of the Bankers Trust Company and its able executive vice president, Chase Mellon, have been an increasing tower of strength. Beginning in 1957, not only will the Fund have available the gifts of corporations, but the contribution of the Ford Foundation of \$10,000,000 will be added over a period of years, according to a formula. Although the American Medical Education Foundation has decided to make its own distributions, the Board of the Foundation believe they can raise more money for the schools under the new plan than the old.

In December 1955 the National Fund arranged for a conference on Industrial Medicine in Pittsburgh. This brought together for mutual benefit and understanding corporation executives, corporation medical directors, deans of medical schools and teachers of industrial medi-

Year	Bachelors degree		Apply M.S.		Projected to apply	
	Actual	Projected	Number	Percent	if 7.42%	if 4.81%
1935	140,903	-----	12,740	9.04	if 7.42%	if 4.81%
1940	186,500	-----	11,854	6.36	-----	-----
1945	131,025	-----	-----	-----	-----	-----
1950	433,734	-----	22,279	5.14	-----	-----
1955	272,000	-----	14,938	5.49	-----	-----
1960	-----	326,000	-----	-----	24,189	15,681
1965	-----	454,000	-----	-----	33,687	21,837



cine. The transactions were published as a supplement to the *Journal of MEDICAL EDUCATION* (March 1956 issue).

The magnificent gift of the Ford Foundation of \$90,000,000 to the private medical schools and the earmarking of it as endowment for support of faculty will make a significant contribution to one of our greatest needs—adequate salaries for academic staff.

The announced policy of the Commonwealth Fund to make substantial grants to selected schools, and the grants of the Macy Foundation to strengthen a few departments of obstetrics and gynecology, are important developments to add to the long standing support of medical education by these and other private foundations.

A most significant emerging trend is the recognition by the so called public foundations and health groups of a responsibility for education of research personnel as well as for the research itself. The American Cancer Society appointed an *ad hoc* committee to review this problem and its report was published recently as a supplement to the *Journal of MEDICAL EDUCATION* (September 1956).

There is every evidence that medical education will continue as a partnership between private and governmental agencies, and that the essential nature of high education in this country will be preserved.

5. *Attention to the Adequacy of the Physical Plant of the Medical Schools:* Although the bill in Congress for support of construction of educational facilities of medical schools failed passage in the last Congress, your Committee on Financing Medical Education is optimistic for success in 1957. The Association owes a debt of gratitude to Dr. Joseph Hinsey and his Committee and particularly Dr. John Youmans and Dr. Harold Diehl, for their devotion to the task of informing the Congress of the needs. Dr. Youmans, as president-elect, spent the greater part of a month in Washington.

The bill for construction of research facilities did pass and allocations have already been made. President Eisenhower, when he signed the bill, issued a strong statement that this met only a part of the need. This is already apparent, since within a few months, the applications number in the hundreds and the requests for funds are far in excess of the appropriations for the first year.

Administrative officers of medical schools are well represented on the National Advisory Council for Health Research Facilities, which will function in relation to the Surgeon General as do the other National Advisory Councils.

6. *Increasing Support of Medical Research:* The conference report to the Congress on the appropriations for the National Institutes of Health for FY'57 constituted a resounding note of confidence by the American people in the stature and potentiality of medical research. The total was \$182,907,000, of which grants constituted \$133,544,000, and in turn of which \$89,697,000 was for research grants.

With increasing support there comes an increasing responsibility of the administrators of these funds in the schools and of faculty members serving on councils and study sections of the U.S.P.H.S. to see that the funds are wisely and prudently spent! It would be better to allow reversion than to lose the confidence we have built up so carefully over the years.

All those in medical research and education are grateful to Marion Folsom, Secretary of Health, Education, and Welfare and to his special assistant, Dr. Lowell T. Coggeshall, for their sympathetic understanding and support of medical research.

Of indirect interest to medical research is the action of the Congress in establishing as an independent agency a National Medical Library by transfer of the present Armed Forces Medical Library. This new federal agency can with adequate support become an even better library for research than it has been in the past.

At the same time, the public voluntary foundations and health agencies are continuing to grow in size and in number and to support more and more research in long cultivated fields and in new fields. A serious problem in the future for those in medicine and for the American public is posed by the increase in number of health agencies collecting money, by the increasing categorization of research, and by the relation of health agencies to United Funds. It will require astuteness and statesmanship to prevent fragmentation and isolation.

7. *Renaissance of Interest in Teaching!* With the vigorous leadership and vision of Dr. George Packer Berry, as

chairman of our Committee on Educational Research and Services, and the support of the preceding presidents, the nature of our meetings has changed. The Teaching Institutes have focused attention on the problems of teaching and have brought into the Association faculty members as participants and members; the Association now has over 1500 Individual Members.

The concepts of study and experiment long applied in research are now being applied in medical education. Our meetings are scientific meetings with education as the topic instead of heart disease or cancer as at other scientific meetings. Twenty-seven titles were submitted for the program at Colorado Springs, of which only 12 could be accepted; the remaining 15 are to be "read by title."

And this resurgence of interest in teaching in each medical school which comes up to the meeting of the Association, then goes back through the deans and faculties to all the schools.

8. *Increasing Prestige of the Journal of MEDICAL EDUCATION:* Under the able chairmanship of Dr. John Z. Bowers, the Editorial Board and the editor, Dr. Dean F. Smiley have brought the Journal to a new position. For some years a grant from the China Medical Board of New York has been available to distribute the Journal to medical schools in other countries. During the present year the Josiah Macy Jr. Foundation made a grant to the Chairman of the Editorial Board for travel and other expenses to cultivate the interest and support of the Journal by the medical schools of other countries, particularly South America.

Increasingly other groups, with reports and monographs touching on medical education are turning to the Journal for publication as a supplement! The transactions of the teaching institutes have been handled in a similar manner.

It is trite to say that a journal is only as good as the papers in it, but this needs emphasis if we are to continue the upward trend of prestige of our Journal. Those in medical education, deans and faculty members, should see that their best papers on education are submitted to the Journal.

9. *Medical Education and National Defense:* Under the leadership of Dr. Stanley Olson, the inauguration of programs of Medical Education for National De-

fense has now been accomplished in 25 schools and 34 more have indicated an interest. With a full-time coordinator in Washington, Dr. James R. Schofield, during most of the past year, real progress has been made in integrating these programs into the teaching of medical students and coordinating the content with the changing needs of national defense.

There is every indication as of now that the doctor draft law will be allowed to expire next year but it will be another year or two before the estimated needs of the Armed Forces will be met by the regular draft and the residency deferment program. Dr. Frank Berry has been understanding of the problems of the deans and has invited representatives of the Association to attend two meetings in Washington during the past year and discuss problems of draft and deferment.

10. *Research by the Association:* Although the Association lost John Stalnaker on July 1, 1955 to the National Merit Scholarships, the section on educational research and services has been reorganized and continued to render a valuable service under the directorship of Dr. Helen H. Gee.

It is pertinent and significant that \$107,062.50 of the current budget of \$311,850.00 is devoted to the section on educational research and services, exclusive of an additional \$47,500 in special funds. The Association represents medical education at the national level and hence should emulate its component parts—the schools—in giving strong support to research, both with its own funds and with grants.

If the future of science is in research and experimentation, the future of education is even more in research and experimentation. We must collect and analyze the facts and observations in education just as we do in science.

11. *Educational Council for Foreign Medical Graduates:* The problem of how to hold to a single high standard of competence for those engaged in health care in the United States, and at the same time preserve America as a land of opportunity, has been of concern to the State Boards, the A.M.A., the A.H.A. and the Association for some years.

During the past year these discussions have been concluded and a definitive program agreed upon. A separate non-

profit group has been incorporated and the Association has designated two members of the Board of Directors—Dr. J. Murray Kinsman and Dr. John McK. Mitchell. Dr. Kinsman is serving as president of the group. Grants for initial support are being solicited and it is hoped operations can start soon.

It is expected that a screening examination can be developed which will select those who have adequate basic ability, to be worthy of further training and consideration by individual state boards for assimilation into the health resources of this country.

12. *Liaison With the American Medical Association:* The Liaison Committee of the Association and of the Council on Medical Education and Hospitals of the A.M.A. has, as usual, met three times during the year—November, February and June. Joint programs and interests such as the survey of schools, postgraduate education, etc. have continued on a cooperative and mutually beneficial pattern. The Council has asked the Association to cooperate with them in a revision of the "Essentials of an Approved Medical School." The first draft of this revision has been made and will be considered at the Colorado Springs meeting.

In November 1955 the Board of Trustees of the A.M.A. invited representatives of the Association to join representatives of the Council on Medical Education and Hospitals in drafting preliminary plans for the Second World Conference on Medical Education to be held in the United States in 1959. Subsequently the Trustees appointed the nominees of the Association to the permanent program committee under the chairmanship of Dr. Victor Johnson. Those so appointed are Dr. Darley, Dr. Dorst, Dr. Lippard, Dr. Moore, Dr. Smiley and Dr. Youmans. One of our representatives (Dr. Moore) was designated as vice chairman.

In other areas the liaison and bilateral actions have not been as close or as effective. In July, on instruction of the Executive Council, a statement of our position on recent unilateral actions of the House of Delegates of the A.M.A. was sent to all deans. At the same time that we deplore unilateral actions of the A.M.A. which affect medical education, the Association must be in a position to discuss problems with others.

Bilateral action is a two-way street with traffic in both directions. Head-on collisions can be avoided by mutual respect for the rights and responsibilities of the other fellow.

13. *The Building of the Association:* Before the first of the year the Association will join the ranks of the national groups which occupy their own central office building. This has been made possible by generous grants from the China Medical Board of New York and the Alfred P. Sloan Foundation. These grants represent an expression of confidence in the future of the Association and its program. Northwestern University has been very generous, too, in making available to the Association a fine site for its building. It is up to us to make this future what our friends believe it to be. A program for dedication of the building is being arranged for February 1957 on the Sunday afternoon before the Congress. It is hoped all deans will attend.

14. *Financial Status of the Association:* In July, in a statement on "The Services of the Association of American Medical Colleges" sent to all deans, the 1956-57 budget, and the assets and liabilities were reported. There has been no material change since then.

#### INSTITUTE HIGHLIGHTS

Monday morning's session featured "Reflections from the Teaching Institute on the Evaluation of the Student—The Appraisal of Applicants to Medical Schools," which was held November 7-10, immediately preceding the Annual Meeting. Speakers and their subjects were:

Dr. George Packer Berry, dean of the Harvard Medical School and chairman of the AAMC's Committee on Educational Research and Services—The Association's Program of Teaching Institutes; Dr. John T. Cowles, assistant for personnel services to the vice chancellor of the Schools of the Health Professions and professor of psychology, University of Pittsburgh—Development of the 1956 Institute of Appraisal of Applicants to Medical Schools; Dr. Robert J. Glaser, associate dean and assistant professor of clinical medicine, Washington University School of Medicine—Evaluating Intellectual Characteristics of the Applicant; Dr. Charles R. Strother, professor of clinical psychology, department of

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psychiatry, University of Washington School of Medicine—Evaluating Non-Intellectual Characteristics of the Applicant; Dr. Carlyle F. Jacobsen, executive dean for medical education, State University of New York—A Critical Look at the Whole Admissions Process; Dr. John McK. Mitchell, dean of the University of Pennsylvania School of Medicine—The Significance of the Institute from a Dean's Standpoint.

### OPEN HEARINGS ON ANNUAL REPORTS OF COMMITTEES

Open hearings on Annual Reports of the Association's standing committees were held Monday afternoon.

### BORDEN AWARD

Dr. Harry S. N. Greene, the Anthony N. Brady professor of pathology at Yale University School of Medicine, was presented with the 1956 Borden Award in the Medical Sciences. The award, consisting of a gold medal and \$1,000, was presented by John H. McCain, secretary of the Borden Company Foundation, Inc. Dr. Joseph Markee, of Duke University, and chairman of the Committee on the Borden Award, made the nominating address.

Dr. Greene's nomination was based on his many contributions in the field of oncology.

## Tuesday, November 13, 1956

### ROLL CALL

All institutional members were represented.

### APPROVAL OF MINUTES OF 66TH ANNUAL MEETING

The minutes of the 66th Annual Meeting, October 24-26, New Ocean House, Swampscott, Mass., were approved as published.

### INDIVIDUAL MEMBERS

A total of 226 Individual Members were voted into the Association, bringing the number to 1544. Six firms became Sustaining Members during 1956. They are: Burroughs, Wellcome & Co., Inc.; Ciba Pharmaceutical Products, Inc.; Eli Lilly & Co.; Parke, Davis & Co.; G. D. Searle & Co., and Chas. Pfizer & Co.

### EXECUTIVE COUNCIL ACTIONS AT NOVEMBER 8-9 MEETINGS

1. The Council approved the auditor's report on the finances of the Association for the fiscal year July 1, 1955 through June 30, 1956. The total income

for the year was \$385,077.32, the total disbursements \$380,280.79. The reserves estimated as of June 30, 1957 will be approximately \$355,000.

2. The membership list was approved as follows:

Institutional Members	
(4-year schools)	78
Institutional Members	
(2-year schools)	4
Institutional Members	
(graduate school)	1
Affiliate Institutional Members	12
Individual Members	1544
Sustaining Members	8

3. The 1957 Annual Meeting dates were confirmed as follows: The Institute—October 15-19; Annual Meeting—October 21-23 at the Chalfonte-Haddon Hall, Atlantic City, N. J.

It was anticipated that the 1958 Annual Meeting would be held at the New Ocean House, Swampscott, Mass., and the 1959 Annual Meeting at the Edgewater Beach Hotel, Chicago.

4. The President was authorized to appoint a committee to draw up a questionnaire form which would be used in

assembling faculty salary data from member schools.

5. The Council voted a contribution of \$1,000 toward the financing of the Second World Conference on Medical Education.

6. The Council unanimously approved the Association's acting as one of the co-sponsors of Medical Education Week to be held in April 1957.

7. The plans for the dedication of the Association's new Central Office Building February 10, 1957 were approved.

8. The Committee on Financing Medical Education was voted authority to act for the Association on all national legislative matters involving a construction act, within the majority opinion of a vote of all member institutions.

9. A statement on the future need for physicians was approved and recommended to the Association for adoption.

#### REPORT OF THE SECRETARY AND EDITOR

DEAN F. SMILEY

The year just completed has been an unusually busy one. Fifteen school visitations were completed and the report on the last one has just gone out. The previsitiation questionnaire forms have been revised and reprinted, and we hope that the new forms will be less burdensome for the schools to fill out and just as useful to our visiting teams. With the increased number of school visitations made necessary by the fact that we are attempting to establish and maintain a minimal schedule of a visitation at least every 10 years, more adequate staff has been found necessary. This coming year the Council on Medical Education and Hospitals of the American Medical Association will be represented on the 16 visits planned by Dr. Edward Turner, Dr. Walter Wiggins, Dr. Glen Shepherd and Dr. John Hinman of their full-time staff. In order that our Association may have proper staff representation on these visits the Executive Council has appointed as part-time assistant secretaries Dr. Robert Glaser, associate dean at Washington University School of Medicine; Dr. Leonard Fenninger, assistant dean at the University of Rochester School of Medicine; and Dr. Arthur Ebbert Jr., assistant dean at Yale University School of Medicine. These three will share

with me the burden of the staff work associated with the visitation program this year while, as heretofore, a dean of a member college will take part in each visitation as the Association's other representative. Dr. William N. Hubbard Jr., having served faithfully for two years as part-time associate secretary of the Association, will relinquish that post this next year to give full time to his recently increased responsibilities at New York University.

Our new central office building going up at 2530 Ridge Avenue, Evanston, Ill. is almost ready for occupancy and I would appreciate it if those of you who are planning on being in Chicago for the Annual Congress on Medical Education and Licensure, would mark your calendars to attend the dedication of our new building scheduled for Sunday, February 10, 1957. It is expected that buses will be provided to transport passengers from the Palmer House to the building in Evanston about 3 p.m., returning to the Palmer House not later than 6:30 that evening. You will receive invitations and I hope you will return the R.S.V.P. cards promptly so that we will know how many to plan for.

Our membership roll stands as follows:

Institutional Members	82
Affiliate Institutional Members	12
Sustaining Members	8
Individual Members	1544

It should be noted that though Sustaining Memberships were authorized previously, this is the first year in which invitations to such membership have been extended and we are pleased to include on this "honor roll" the following well known companies: The W. B. Saunders Co., E. R. Squibb & Sons, Burroughs Wellcome & Co., Ciba Pharmaceutical Products, Inc., Parke Davis & Company, G. D. Searle & Co., Chas. Pfizer & Co., and Eli Lilly & Company.

During the past year 19 questionnaires have been submitted to the Secretary's office for recommendation. The recommendation was for cooperation in 13 cases, against cooperation in 6, for a variety of reasons. It is encouraging to note that more of those persons or organizations contemplating a questionnaire to our schools consult the central office of the Association first. This makes it possible to provide any pertinent information already available



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and thus point out that the questionnaire is not needed or that certain parts of it are unnecessary. Since you ruled in 1951 that all questionnaires to the schools must be brought to the notice of the home office and a recommendation made, 137 have been reviewed and acted upon.

The demand of foreign trained physicians for help in obtaining opportunities for advanced training continues unabated. Inquiries were received this past year from 103. It is my opinion, and it is shared by the Chairman of our Committee on International Relations in Medical Education, that though we continue to make special efforts in behalf of those expecting to return to teach in their own countries, our present methods of bringing hospitals and foreign physicians together are as a whole totally inadequate. Without proper knowledge or guidance many of these physicians are applying for hospital appointments of a type quite unlikely to provide them with the training they need. And on the other hand, some of our hospitals are accepting foreign trained physicians as interns and residents who are definitely not prepared to take their place at that rung of the medical educational ladder. The need for the new agency, already in the advanced planning stage, is urgent. In the meantime we should realize that in many parts of the world our educational standards are being seriously criticized as being too low. Ivan Putman Jr., Foreign Student Adviser at the University of Florida, upon return from a recent trip to the Middle East stated the problem quite clearly in the October 1956 News Bulletin of the Institute of International Education in the following words: "... American education in general is being damned in the Middle East for the failure of some institutions to maintain adequate standards. . . . I was told repeatedly of cases in which poor students from the Middle East who could not qualify for higher education at home were admitted to U. S. institutions, sometimes without even presenting credentials. . . . Some of our Middle Eastern friends credit us with adequate standards for our students, but accuse us of allowing foreign students to "get by" with a lower standard. . . . I returned from the Middle East convinced that perhaps one of the most important contributions we

in American education can make toward achievement of the long-range objectives of student exchange is to maintain high standards of admission and academic performance for both foreign and native students."

The Journal has taken a number of important steps forward this past year. It has increased the number of original articles per issue to six; it has continued to increase the proportion of solicited articles; it has expanded its list of foreign correspondents and its coverage of medical education news from abroad; it has added Spanish abstracts of its articles; it has published five important supplements and presented them as a bonus to its subscribers. As a result of these efforts more of our articles and editorials are being reprinted in other Journals and more of the publication costs are being met by advertising revenue. It has been an unexpected pleasure to note that a number of the pharmaceutical houses and publishing firms that have recently come into Sustaining Membership in the Association have also recently increased their use of advertising space in our Journal.

You are giving the Association wonderful support. The previsitiation questionnaire forms are being returned early and with almost all questions answered fully; the forms for the applicant study of the entering class just registered are already in from every school in the country save one; the increased dues you voted last year are being paid without delay; you have made possible the bringing in of an Executive Director with the new year who is well equipped to carry on the higher echelon activities of the Association; the new central office building will be ready for occupancy within the next month; adequate staff has been provided for the school visitation program. You have implemented the Association as it has never been implemented before. It is therefore in better position to serve your needs and contribute more significantly to medical education as a whole. There are multiple opportunities for improving or expanding our services and I am sure the Executive Council will welcome suggestions, and recommendations, as to which of the extensions or improvements are most deserving of high priority.



**REPORT OF THE TREASURER FOR THE  
YEAR 1955-56**

Dr. Stockton Kimball presented a series of slides which summarized the financial operations of the Association over the past year as follows:

**EARNED INCOME**

Dues .....	\$ 63,907.50
Subscriptions .....	7,281.02
Publications .....	19,719.06
Advertising .....	29,769.37
Film Sales and Rentals.....	4,682.61
Interest on Investments.....	9,032.75
M.C.A.T. revenue.....	93,685.34
Miscellaneous .....	482.60
	<u>\$228,560.25</u>

**GRANT INCOME FOR SPECIAL  
PROJECTS**

John and Mary Markle	
Foundation .....	\$ 60,000.00
The Commonwealth Fund..	50,000.00
Josiah Macy Jr. Foundation	10,000.00
Abbott Laboratories.....	10,000.00
National Heart Institute.....	25,000.00
Overhead on projects.....	1,517.00
	<u>\$156,517.00</u>
Total Income.....	<u>\$385,077.25</u>

**DISBURSEMENTS FOR  
REGULAR SERVICES**

Salaries .....	\$108,595.39
Rent and house expenses....	17,734.06
Travel .....	17,792.58
Annuities .....	2,461.02
Payroll taxes for	
Social Security.....	1,987.48
Office supplies, telephone	
& postage .....	13,547.20
Furniture and equipment..	2,779.15
Annual meeting.....	4,562.71
Publications .....	51,738.74
Insurance .....	407.74
Advertising & circulation	
promotion .....	2,552.16
Mailing & engraving	
(Journal) .....	3,935.99
Miscellaneous .....	1,952.38
	<u>\$230,046.60</u>

**DISBURSEMENTS FOR  
SPECIAL PROJECTS**

Film purchases and	
expenses .....	\$ 16,956.37
Building Fund.....	73,142.59
Teaching Institute and	
Special Studies.....	46,293.04
	<u>\$136,392.00</u>

Total Disbursements.....	366,438.60
Added to Reserves.....	<u>18,638.65</u>

Total Reserve including	
Building Fund and Reserves	
restricted to special	
projects .....	<u>\$414,606.00</u>

**REPORT OF THE DIRECTOR OF RESEARCH  
HELEN HOFER GEE:**

Highlights of the research, Teaching Institute coordination, publication, and service activities carried on in the office of the Director of Research are presented in the Report on the Committee on Educational Research and Services. The present report focuses on one project in the current research program—a study of the diversity of characteristics of medical school students—because of its implications for higher education in general, and the light of its findings can throw on immediate problems in medical education, exemplify the broad contributions this office hopes to make in its attempts to assist the Association toward the realization of its objectives.

The Association's originally planned program of studies of intellectual and nonintellectual characteristics of medical school students was given added impetus during the past year when it was found that related studies of the diversity of characteristics of students in all of higher education were being planned by the Institute of Higher Education at the University of California. The Carnegie-supported Institute, recently established under the direction of Dr. Thomas R. McConnell, requested the Association's cooperation in their studies, which are aimed at assisting the nation's schools and colleges in finding solutions for problems that surround expected vast increases in the population of students seeking higher education. The phase of the Carnegie Institute's program with which we, as representatives of medical education will be concerned, seeks to determine: How many students at what levels of ability and with what patterns of personal and social characteristics are to be found in what types of colleges and universities? And further: What happens to the students who enter higher education, what curricula do they choose and what careers do they eventually pursue?

These questions are of broad interest.

We in medical education are particularly concerned with their applicability to the student of medicine, and we are considering them, not only in formalized research projects, but also through other activities of the Committee on Educational Research and Services, notably the current Teaching Institute program on the evaluation of the student, the annual applicant studies, and the MCAT testing program. None of this work would be possible were it not for the excellent cooperation of all of the member medical schools. Without it we could never have planned, as we have, the intensive, long-range studies that are involved in exploration of the characteristics of medical students, the motivational variables related to medical school performance, the impact of medical education upon the student, and finally the characteristics of the members of the profession of medicine in all of its varieties. The "Carnegie project" represents the first phase of these explorations.

Generally, the kinds of questions asked provide a clearer picture of the nature of a research project than does an outline of statistical designs. Our present program of research is being launched upon questions like those that follow. To shed light upon them, we have available the Association's unique set of records on all students enrolled in our medical schools, and in addition to these, large samples of interest and personality test data collected during the past year. In the spring of this year 21 medical schools administered tests to senior medical students and in the fall 27 schools administered tests to their entering freshmen, in generous cooperation with the Association's requests. The tests administered were: The Strong Vocational Interest Blank, the Edwards Personal Preference Schedule, and the Allport-Vernon-Lindzey Scale of Values. Some of the questions we are now asking about the intellectual and nonintellectual characteristics of men and women entering the profession are:

1. *Intellectual Characteristics.* How broad is the range in intellectual level of ability of the physicians now entering the profession? Is there a lower level of intellectual endowment necessary for the study and practice of medicine? Are there different upper and lower desirable limits of intellectual capacity for various kinds of careers, such as teach-

ing and research as opposed to general or specialty practice? Are intellectual characteristics related to the choice of a specialty?

2. *Nonintellectual characteristics.* What are the interest and personality patterns of those who select a career in medicine? Are there ascertainable differences in these patterns that characterize those who choose to enter the different specialties or those who graduate from different schools? Would some of the students who are now lost to medicine through withdrawal or even failure have been successful at another medical school with different fellow students, teachers, traditions, and philosophy? What about the students who are discouraged from or are never attracted to medicine? Are we losing some we might prefer as representatives of the profession, as opposed to some others we are now selecting? How can we identify such intangible qualities as integrity and social responsibility that are so important in the practice of medicine?

The answers to these questions will provide us with a good deal of information on complex patterns of behavior. Our real aim is to identify the relevant intellectual and nonintellectual characteristics that can be measured—then we can proceed with some confidence in applying the findings to the problems of medical education in filling society's need for medical service.

Learning as much as we can about the identification of characteristics that make for the best kind of physician seems particularly relevant today as we look toward a period when larger numbers of college students will be clamoring for entrance to medical school. By 1965 enrollment in undergraduate colleges may be expected to have increased by 148 per cent over 1952. If approximately 5 per cent of college graduates continue to apply for admission, problems of selection will be seriously increased in extent and complexity, for the capacity of our medical schools will not increase proportionately—indeed it possibly should not. The problem is further complicated when we realize that a large pool of promising talent never gets beyond high school. Within the context of this situation, we sincerely hope our research efforts can contribute to the advancement of education in general and medical education in particular.

It is not appropriate here to detail the methodology of the Carnegie study and the other related projects now in various stages of planning, execution, and analysis. Reports of our findings will be published in full in forthcoming issues of the *Journal of MEDICAL EDUCATION*.

**JOINT REPORT OF DIRECTOR  
OF MEDICAL AUDIO-VISUAL INSTITUTE  
AND CHAIRMAN OF THE COMMITTEE  
ON AUDIO-VISUAL EDUCATION**

J. EDWARD FOSTER, director MAVI;  
WALTER BLOEDORN, chairman of committee:

*Financial:* The Medical Audio-Visual Institute operated within its basic budget of \$18,000. This budget bought salaries and annuities, rent and house expenses, supplies, postage, telephone and travel.

The Medical Audio-Visual Institute also drew on grants for two special projects: One from Abbott Laboratories of North Chicago for film production; the other from Pfizer Laboratories of Brooklyn for development of a film library. Some detail of expenditures follows in the Program Report.

**Program**

**1. Film Distribution:**

(a) Library developed by Pfizer Laboratories Grant.

During the Spring of last year Pfizer Laboratories provided the sum of \$10,000 for the purchase of films which were not available from the other major medical film sources. The following table shows the extent to which the money has been expended and what has been bought.

*Expenditures:*

Films, equipment and supplies..\$4,058.47

*Present Inventory:*

Number of titles.....	57
Number of prints.....	90

*Distribution:*

Number of rentals and previews	161
Income from rentals.....	514.69
Balance of original Pfizer Grant	4,776.00

*(b) Film Publications Revolving Fund.*

This revolving fund was designed as a very limited fund to help finance the completion of production of the occasional worthy film which a school or author is unable or unwilling to finish and distribute. The fund was designed to handle special expenses such as animation and release printing which the

author is unable to stand. The Medical Audio-Visual Institute buys the necessary prints and distributes them at a small profit to defray the expenses and in some cases, to return a small royalty to the author. No such films have been completed during the past fiscal year but previously completed films have been bought, circulated and sold. (This fund also handles the purchase of prints and the distribution of films which were completely produced by MAVI.)

The following is a combined financial and activities picture of this fund during the past year:

Number of prints bought ....	71
Number of prints sold.....	60
Number of rentals and previews .....	212

*Expenditures:*

Film purchases and supplies .....	\$2,613.16
Royalties paid .....	174.02

Income: .....	4,167.92
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Balance .....	\$1,380.74
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Added to the balance from last year the fund now contains approximately \$2,000. This is available to provide assistance to worthy films well under-way.

**2. Film Production:**

One year and a half ago Abbott Laboratories provided a continuing grant of \$10,000 per year for three years for the production of a series of undergraduate teaching films on cell physiology utilizing the research footage and resources of the Tissue Culture Laboratory of the University of Texas—Medical Branch. Dr. C. M. Pomerat is director of that laboratory. To date a total of approximately \$15,000 has been expended and three films have been completed in the "Living Human Cells in Culture" series. The individual titles are "The Hela Cell Strain," "Microglia," and "Oligodendroglia." The first named was the first completed and 76 prints are now in circulation. In addition a Spanish language track has been placed on the film for foreign use.

**3. Prototype Teaching Area:**

The prototype all-purpose teaching area as a project was described in the August issue of *The Journal of MEDICAL EDUCATION*. This project was prompted by three questions:

(a) Is the presently known information relative to classroom design being applied to the construction and equip-

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ping of medical school classrooms?

(b) Can applied research in the construction of medical school teaching areas turn up valuable information?

The prototype teaching area at Kansas City is an attempt to consolidate, gather and verify information necessary to adequately answer some of the questions raised by teachers and architects. Some \$100 million per year will be expended in medical school construction during the next few years. It is hoped that a brochure or booklet can be prepared incorporating all pertinent data which will be available for reference.

4. "Audio-visual News"—The Journal of MEDICAL EDUCATION:

The MAVI maintains a regular section in The Journal dedicated to audio-visual news items, film reviews, and articles which encourage better and wider utilization of audio-visual materials.

5. AV Conference of Medical and Allied Sciences:

The MAVI has been an active participant and has provided the chairman for the annual AV Conference of Medical and Allied Sciences since the inception of that conference in 1953. Membership of the conference includes two people from each of 12 national non-profit associations which have AV programs. The association includes the fields of medicine, dentistry, veterinary medicine, pharmacy, nursing and hospitals. The chief purpose of the conference is the exchange of audio-visual information.

### REPORT OF THE COMMITTEE ON CONTINUATION EDUCATION

JAMES W. COLBERT, JR., chairman

The Committee has met twice during the past few days and has noted with distinct interest the enthusiasm of the participants.

It is presented by the Committee to the Association that the continued education of the physician is best assured by the establishment of an intellectual and educational environment supporting the responsibility of patient care. Such an environment will certainly require academic leadership and thus the role of the medical school will probably become greater rather than less. This academic interest is attested to by

the recent report of the Council on Medical Education and Hospitals of the A.M.A. in its annual educational number published in August of this year.

The Committee wishes to express its appreciation to Dr. Glen R. Shepherd of the Council on Medical Education and Hospitals for his assistance and interest and for the opportunity afforded the Committee to examine the preliminary recommendations of his advisory group concerning the objectives and principles of postgraduate education.

### REPORT OF THE COMMITTEE ON FINANCING MEDICAL EDUCATION

JOSEPH C. HINSEY, chairman:

The member institutions of the Association of American Medical Colleges have been currently informed regarding the activities of the Committee on Financing Medical Education. The last report that was presented was made by Dr. John B. Youmans, who reported upon his activities in Washington, D. C., during June and July, at which time he worked in support of our legislation before Congress.

Realizing that it would be necessary for us to formulate our plans for the coming year, your Committee met in Washington, D. C., on Friday, September 21, 1956. There were present: Dr. Bloedorn, Dr. Anderson, Dr. Topping, Dr. Youmans, Dr. Dorst, Dr. Lippard, Dr. Moore and Dr. Hinsey. Dr. Smiley was present as well as Dr. Lowell Coggeshall. At this meeting we met to consider the future plans concerning the development of legislation for federal aid to construction to medical schools. At luncheon that day we had as our guest Kurt Borchardt, who is the assistant to the Committee of the House of Representatives which deals with this legislation. We arranged for a meeting in Colorado Springs to be held on November 10 at which Mr. Borchardt will be present. At that time the answers to the questionnaire which he had sent to Dr. Robert Moore will be discussed. This questionnaire dealt with the background of the basic needs of the medical schools and was sent to a number of different agencies. By the time we meet at Colorado Springs, the national election will be over and it will be possible to determine in better fashion the fu-

ture course of action which the Association should take. Furthermore, the make-up of the Committee of the Association for the coming year will be known and active work can be undertaken. The Committee will appreciate suggestions from the members of the Association. A sincere attempt has been made to secure the passage of the legislation the schools desire.

There have been certain dealings with the National Fund for Medical Education about which you have been informed by the Fund itself. For that reason we shall not detail them here.

The attention of the members of the Association is called to the supplement number of *The Journal of MEDICAL EDUCATION*, September 1956, Vol. 31, No. 9, entitled: "Support of Cancer Research by the American Cancer Society," written by Harry M. Weaver of that Society. At the end, page 30, there is a report of a Committee on Basic Research and of Medical and Educational Centers. This committee after consideration of a number of the basic tenets bearing upon this problem, made the following recommendations:

(1) "The committee recommends that, if suitable arrangements can be made, the American Cancer Society award fluid funds to institutions for higher learning that grant M.D. and/or Ph.D. degrees in the biological and related sciences, to foster improved training and to stimulate the pursuit of knowledge for its own sake in the medical, biological and related physical sciences; recognizing that through such furtherance of knowledge advances of great significance to cancer may result.

"The committee acknowledged that many details of the administration of such funds would need to be worked out, for example, the Society's 'No bricks and mortar' policy would need to apply. Moreover, the Society would need to be assured that such grants would be used entirely to augment the institution's present operations in the medical, biological and related physical sciences and not merely be used to recapture other funds now used for this purpose.

(2) "After discussion of what proportion of the Society's funds should be allocated for grants of the type recommended, it was voted that the Society consider devoting 10 per cent of its total resources to this purpose."

At this time, we do not know what action has been taken on this report but we do know that an attempt is being made to transmit this recommendation to other voluntary foundations so that they may give similar consideration. It is hoped that before too long funds may be available to our medical schools from this source.

#### REPORT FROM COMMITTEE ON INTERNATIONAL RELATIONS IN MEDICAL EDUCATION

RICHARD H. YOUNG, chairman:

The Committee has had two closed meetings during the year, the first on February 13, 1956 in Chicago at the time of the meeting of the Annual Congress on Medical Education and Licensure and the second at the time of the Annual Meeting of the Association of American Medical Colleges.

The Committee exists to orient members of the Association to the responsibilities and opportunities involved in international relations in the field of medical education. The increase in international exchanges since World War II has been tremendous. The Committee, also, functions in an advisory capacity to the Executive Committee and the Executive Secretary of the Association.

The principle concern of the Committee has been limited to the exchange of medical personnel at the advanced scholar level (research scholars, medical faculty members and lecturers) and in contractual programs between American and foreign medical schools.

There are three principle government-sponsored exchanges, the International Cooperation Administration of the State Department, administered by the Division of International Health of the Public Health Service, the Fulbright Program of 1946 and the Smith-Mundt Program, which in 1948 broadened exchange activities to include other kinds of grants and non-Fulbright countries. Two non-governmental agencies through contractual agreements with the Department of State assist in the selecting and placing of the Fulbright and Smith-Mundt grantees, namely, the Committee on International Exchange of Persons of the Conference Board of Associated Research Councils (CIER) and the Institute of International Education (IIE). The former organization deals only with senior scholars.



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In addition to the government exchange programs innumerable institutions and agencies have sponsored exchange programs of their own. Among these programs are the Rockefeller Foundation, the Kellogg Foundation, the Pan American Sanitary Bureau (PASB), Regional Office of the World Health Organization (WHO), Commonwealth Foundation, John Jay Whitney Foundation, Division of International Health of Public Health Service (from International Cooperation Administration of State Department), and Unitarian Service Committee. The picture is complex, and overlapping, eligibility, screening processes, selection methods, assignments, stipends, travel funds for local or international use, book allowances, medical expenses, etc. vary considerably. It has been said that foreign scholars now "look for the agency giving the highest stipends and the greatest fringe benefits."

At the February meeting of the Committee it was suggested that a roundtable discussion be held in conjunction with the Annual Meeting of the Association, having representatives of the various agencies describe their roles in foreign school exchange programs. There is no one central agency, no one central registry—except for South American countries there is the Medical Education Information Center at the PASB.

In regard to contractual agreements between foreign and American medical schools, a member of the Committee, Dr. Max Lapham, is an essayist at this meeting—"Experiments in Medical Education—Cooperative Programs with Foreign Schools." Tulane University Medical School has an agreement with several medical schools in Colombia. Members of the Association are aware of the existence of contractual agreements between University of Minnesota and Korea, University of California and Indonesia (two more years), University of Buffalo and Paraguay and of the fact that the University of Wisconsin will have some exchange with Peru and that the University of Iowa has a contract with ICA to work with the University of Quito in Ecuador. The contract between Washington University (St. Louis) and Thailand was discontinued in July 1953, but Thailand is going to receive assistance through ICA, and two members of the faculty of the University of

Utah are going to Thailand for a period of two years. The contract between the University of Pennsylvania and Burma never materialized. There is informal cooperation between Duke University and Taiwan.

The Committee has difficulty in acting as a unit, and its accomplishments must be measured against the individual efforts and interests of each member. Dr. Lapham has been mentioned above; Dr. Francis Scott Smyth has personally directed California's program in Indonesia; Dr. E. Grey Dimond is "in Utrecht, Holland, exploring first-hand international medical education" as a Fulbright Lecturer; Dr. Walter E. Macpherson heads the College of Medical Evangelists, a school that sends many medical missionaries to foreign lands; Dr. Jean Curran has recently surveyed medical education in the Philippines at the request of the World Health Organization and the Philippine Government; and Dr. Norman Nelson before becoming dean at the University of Iowa was dean of medicine at the American University in Beirut. Consultants to the Committee are Harold H. Loucks of the China Medical Board, Elizabeth T. Lam of the Committee on International Exchange of Persons, and Myron Wegman of the Pan American Sanitary Bureau, all of whom are associated with agencies deeply involved in problems of the foreign medical scholar through their own programs. The chairman during the year attended the meeting of the Co-operating Committee on Graduates of Foreign Medical Schools and visited the Pan American Sanitary Bureau, the Institute for International Education, the International Division of the Public Health Service and the Committee for International Exchange of Persons of the Conference Board of Associated Research Councils.

The Association of American Medical Colleges will be a participating agency in the Second National Conference on Exchange of Persons sponsored by the Institute for International Education to be held in Chicago December 5-7, 1956. Workshop sessions on "How Can Exchange Programs Be Improved in Professional Fields" will have a section on medicine and health to be chairmanned by Dr. Willard Rappleye and authored by Dr. Walter S. Wiggins.

A Conference on Medical Education in



United States is to be held at the University of Wisconsin in June 1957, co-sponsored by the Committee on International Exchange of Persons of the Associated Research Councils and our Association. The Conference is for Advanced Fulbright Scholars to afford them an opportunity to become acquainted with the broader issues of American medical education and to discuss medical education problems of mutual interest with American medical educators. The Conference will be financed by a grant from the China Medical Board with the University of Wisconsin being the host institution.

#### **REPORT OF COMMITTEE ON INTERNSHIPS, RESIDENCIES AND GRADUATE MEDICAL EDUCATION**

E. HUGH LUCKEY, chairman:

During the past year the activities of your committee were concerned with (1) further matters relating to the advisability of the Association undertaking a study of the internship in teaching hospitals; (2) the operations of the "Berry Plan" for residency deferment; (3) the Doctors' Draft Act and changes proposed at its termination June 30, 1957, and (4) recent proposals and activities of various groups in regard to the internship.

Again this year the committee recommended to the Executive Council that a study of internships in teaching hospitals be considered. The following extract from minutes of the meeting of the committee on February 12, 1956 refers to this action. "Because of the close interrelationships between the problems of the internship and the various undergraduate extramural preceptorship programs in our medical schools, it was voted that a recommendation be made to the Council expressing the continued interest of this committee in a study of internships in our teaching hospitals and recommending further that such a study be designed to include an evaluation of the situation in regard to undergraduate clinical curriculum." This recommendation was reported to the meeting of the Executive Council of June 19, 1956.

The chairman attended two meetings in the office of the Assistant Secretary of Defense, together with representatives from the American Medical Association, American Dental Association

and from the various armed services to discuss the current status of the "Berry Plan." Reports of these meetings are on file in the Association office. It can be reported that the current operation of the plan has resulted in a much more orderly and sound procedure for the call of physicians to military service.

At the meetings in the Department of Defense there was discussion of the situation at the termination of the "Doctors' Draft" on June 30, 1957. At the termination of the Act the basic draft law, which continues to 1959, will be modified or amended to provide essentially the same powers as now residing in the Special Doctors Draft Act. Therefore, physicians, dentists (and other professional groups) will still be subject, up to age 35, to the regular draft. Even so, it was stated that few, if any, of those over age 30 are apt to be called, as the Defense Department estimated that the majority of its needs can be met by recent graduates of medical schools.

Finally, the committee have been concerned with the recommendations and proposals concerning internships advanced by various interested parties in the course of the last year. These proposals have included the action of one group recommending that all straight internships be abolished, the inclusion of the internship in the fourth year of the medical curriculum, and the elimination of the internship entirely. It is the opinion of members of the committee that the Association of American Medical Colleges should place on the record a statement of policy in regard to the educational experience of the intern. Such a statement will be forwarded for consideration by the Executive Council following the meeting of the committee on November 11.

#### **REPORT OF THE COMMITTEE ON LICENSURE PROBLEMS**

J. MURRAY KINSMAN, chairman:

The Committee met at 4 p.m. on Monday, October 12, Dr. Whitaker and the chairman being the only members of the committee in attendance.

Dr. Sam Poindexter, chairman of the Medical Board of Idaho provided copies of a suggested Medical Practice Act which had been approved by the Federation of State Medical Boards at its meeting in Chicago in February 1956.

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Dr. Poindexter outlined the background of the work which led up to the adoption of the suggestions incorporated in this document which was designed to promote greater uniformity in the various state laws concerning licensure—a matter in which the Association has had great interest for many years. There was general discussion of certain features of the proposal, into which the problem of the foreign medical graduate entered.

There was a review of the current status of the newly organized Educational Council for Foreign Medical Graduates.

The Committee has no recommendations to make to the Association at this time.

### REPORT OF COMMITTEE ON MEDICAL CARE PLANS

JOHN F. SHEEHAN, chairman:

At the 1955 annual meeting in Swampscott the committee on Medical Care Plans expressed the conviction that voluntary prepayment health insurance (for physicians' services) had already had a notable effect on medical education at the undergraduate and graduate levels and would have an even greater impact in the years ahead. In an effort to appraise the current situation and to uncover possible adjustments and compensations, the Committee decided to formulate a questionnaire for distribution to the heads of the clinical departments in the medical schools and hospitals throughout the country.

Late last summer such a questionnaire was prepared and sent to the chairmen of all five of the major clinical departments in the medical schools of this country and to the heads of the five major clinical departments in hospitals, whether affiliated with medical schools or not, which were approved for the training of a total of 25 or more residents on the combined approved services. The Council on Medical Education and Hospitals of the AMA, through the kindness of Dr. Arthur A. Springall, and Dr. Edward L. Turner, furnished the list of hospitals and the names of the heads of their clinical departments. Dr. Dean F. Smiley and Miss Allyn of the Association staff prepared similar lists for the clinical departments in medical schools and handled much of the detail of mailing. The Committee

wishes to thank these organizations for their splendid cooperation.

Four hundred and eighteen questionnaires were sent to the five major clinical departments in medical schools and 979 to hospitals, including 86 city, state and county hospitals, 62 federal hospitals and 147 private hospitals. Altogether, 1,397 questionnaires were mailed. To date only 20 per cent of the hospital departments and 21 per cent of the medical school departments have responded—specifically, 25 per cent of the departments of medicine; 27 per cent of the departments of pediatrics; 21 per cent of the departments of surgery; 16 per cent of the departments of psychiatry and 13 per cent of the departments of obstetrics and gynecology.

At this time only a preliminary report of the results of the survey can be made. Even this must be limited to the returns from the medical schools. A more detailed report will be given later.

In the current report the Committee will touch on only a few items in the questionnaire and, in particular, on those which were discussed at length at the open hearing on Monday, November 12, 1956.

ITEM 1. "Have prepayment health insurance plans (for payment of physicians' services) had any effect on clerkship and/or residency training programs in your institution?" With regard to the effect on clerkships, the replies indicated a beneficial effect in 30 per cent, a detrimental effect in 9 per cent and no effect in 19 per cent. Forty-two per cent stated that the question did not apply to them. With regard to the effect on residency training, 34 per cent indicated a beneficial effect; 18 per cent, a detrimental effect and 40 per cent, no effect. Eight per cent considered the question irrelevant. These surprising results caused one of the discussants at the open hearing to comment that the departmental chairmen were not conscious of the trends in or effects of health insurance programs.

ITEM 2. (Number 5 in the questionnaire.) "Are private patients satisfactory substitutes for medically indigent patients in clerkship and/or residency programs? If the answer is yes, list reasons. If no, list difficulties. List mechanisms used to overcome the difficulties." Forty-nine per cent of those responding stated that private patients are satisfactory substitutes for medically indigent

patients in clerkship and residency programs and 31 per cent stated that they were not. Twenty per cent gave qualified answers. Of those who gave a negative answer, the vast majority stated that in the care of private patients the house staff is denied the degree of responsibility, ideal or even necessary for adequate training. Among the mechanisms suggested for the utilization of private patients in adequate residency training programs, particularly in surgery, the following seem most pertinent:

1. Revert to the preceptorship method of graduate training.

2. Assign patients to a service and not to a physician.

3. Maintain our existing system of graduate training while permitting the ward services of civilian hospitals to disappear and thereafter rely solely on governmental hospitals for graduate surgical training.

4. Insure the continuance of our present system of graduate training by instituting measures which will insure ward services, specifically by making the individual hospital staff member aware of an additional responsibility—the referring of some of his private patients to the ward service with knowledge and consent of patient.

At the opening hearing these points were discussed. There was dissatisfaction with regard to each of the suggested solutions. Note was made of the fact that as insurance coverage increases and dictation by insuring agencies accompanies the increase, less money totally will be available for the support of private solo practice; and group practice, possibly of the private clinic type, will come more and more to prevail. Such a trend might force medical schools to operate such clinics. To these, patients might come directly or be referred. With licensed residents part of the staff, patients could be assigned directly to such residents with full responsibility on them for definitive care. Thus survival of the present system of graduate training in specialties, such as surgery, could be insured and the rights of the patient safeguarded.

The Committee takes no recommendation in this matter but merely brings it to the attention of the Executive Council and the membership of the Association.

The only other major item which came up for discussion at the open hearing

on November 12, 1956 was the possible impact on medical education of the new and permanent medical care program authorized by the last session of Congress through the 1956 social security amendments. This program will go into effect July 1, 1957; will be financed from jointly supported federal-state funds and may result in as much as \$200 million being paid annually to physicians, dentists, nursing homes, hospitals and druggists for the medical care of the 3 per cent of the total population who receive public assistance in four categories—old age assistance, aid to dependent children, aid to the blind and aid to the totally and permanently disabled. These funds must be paid by the states to the vendors of medical care or to their agents. The states will decide on methods for contracting with and re-imbursing physicians. State welfare agencies are already trying to determine how payments are to be made to physicians—through state medical societies or other agencies, what the scope and type of fee schedule should be and who should be classified as “medically indigent.”

The Committee on Medical Care Plans recommends to the Executive Council that appropriate steps be taken at the state and national levels to protect medical education from the potentially deleterious effect of the new public assistance medical care program on clinical teaching.

#### **REPORT OF SUBCOMMITTEE ON MEDICAL EDUCATION FOR NATIONAL DEFENSE**

STANLEY W. OLSON, chairman:

The Subcommittee on Medical Education for National Defense, operating under a joint authority of the Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association and with the sponsorship of the United States Army, Navy, Air Force, Public Health Service and Federal Civil Defense Administration, has continued to manifest a flourishing growth and development during the academic year 1955-56.

At the time of the last meetings of the Association in Swampscott, Massachusetts, the MEND Committee selected 10 new schools to assume affiliation with the MEND program as of 1 January 1956. These were New York University,

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Temple, Maryland, Pittsburgh, Michigan, Louisiana State University, Duke, Washington University in St. Louis, Kansas and the University of California in Los Angeles.

Following its policy of holding three annual meetings, the Committee also met during February 1956, in Chicago at the time of the Congress on Medical Education and Licensure, and met for a final time during June 1956, in connection with the meetings of the American Medical Association. At the time of this last meeting, selections were made for affiliation with the program beginning 1 January 1957. The selections are Western Reserve, Tulane, Stritch, Texas in Galveston, Mississippi, Louisville, College of Medical Evangelists, Creighton, North Carolina, and Vermont.

Two conferences of the MEND Coordinators were held. At Swampscott at the time of the last annual meeting of the Association, the coordinators were invited to report their activities before a representative group of deans and other administrative officials of the Association. A second conference of coordinators was held in February 1956, in Chicago, at which time the members of the committee and the more experienced coordinators began the process of orientation of the deans and coordinators of the newly affiliated schools.

During the last two weeks in March 1956, the members of the Committee and the National Coordinator conducted a 10-day orientation tour for the newly appointed coordinators and their deans. A group of 45 people visited military establishments in San Antonio, and in particular the Brooke Army Medical Center and the School of Aviation Medicine at Randolph Field, were briefed on the activities of the Public Health Service and the Federal Civil Defense Administration, and concluded the tour with a visit to the U. S. Navy School of Aviation Medicine at Pensacola, Fla., during which time the group spent a day on the U.S.S. Saipan Aircraft Carrier.

Each of the three military services sponsored a symposium, as follows:

1. Air Force: 14-15 November 1955—"Basic Sciences in Aviation Medicine," Randolph Air Force Base, San Antonio. Attendance: 67.

2. Navy: 14-16 February 1956—"Infectious Disease Problems," Great Lakes Naval Training Center. Attendance: 70.

3. Army: 9-11 April 1956—"Radiobi-

ology," Walter Reed Army Institute of Research. Attendance: 127.

The development and expansion of the MEND program has been made possible due to the support and financial backing given it by the Assistant Secretary of Defense, Health and Medicine, Dr. Frank B. Berry, and by the Surgeons General of the Army, Navy, Air Force, Public Health Service, and by the Medical Director of Federal Civil Defense Administration, and due to the cooperation between members of the medical faculties and officers of the government agencies in Washington.

A full-time National Coordinator (Dr. James R. Schofield, on leave as assistant dean at Baylor), an administrative assistant, and a secretary have maintained a central office in the Bureau of Medicine and Surgery of the Navy in Washington. The National Coordinator and the members of his staff are charged with the responsibility of establishing an orderly flow of teaching materials from the sponsoring agencies to the schools, to provide speakers from the ranks of the military services and Public Health Service for use by the schools, to aid in the solution of fiscal problems. Additionally the National Coordinator is expected to travel widely to visit the colleges of medicine and the government establishments. During the academic year 1955-56, the National Coordinator traveled some 50,000 miles, in pursuance of these matters.

Other colleges of medicine, interested in the MEND program and seeking affiliation with it as of 1 January 1958, should contact either the National Coordinator at the Bureau of Medicine and Surgery, U. S. Navy, Potomac Annex, Washington, D. C., or Dr. Stanley W. Olson, Dean, Baylor University College of Medicine, Houston, Texas.

### REPORT OF THE COMMITTEE ON PUBLIC INFORMATION

JOHN L. CAUGHEY, chairman:

The Committee on Public Information has not been active during the past year but looks forward optimistically to opportunities which will emerge from the projected reorganization of the Association's central office.

This Committee is composed of deans and professional public relations personnel. It has emphasized repeatedly its belief that it can perform its planning

and advisory functions effectively only if there is some public relations staff in the central office of the Association. For good reasons the Association has found it necessary to devote its resources to other areas. Now the program of the Association has developed to a point where it can provide abundant material for effective communication to the public on such matters as admissions to medical schools, the supply of physicians, financing of medical education, and relations of medical schools with practicing physicians. The Association needs expert help to make best use of this type of material. Competent public relations personnel would be able to improve communication between the national office of the Association and the member schools, and also give guidance to individual schools in the development and improvement of their own public relations programs.

The Committee recognizes that an increasing, but still not large number of schools are already doing effective public relations work which is a great contribution to the cause of medical education.

Acknowledgment should also be made in this report of the ready cooperation provided by the medical section of the American College Public Relations Association in matters referred to it, and in arrangements for the annual meeting.

The Committee has no specific recommendations at this time. It is eager to participate during the coming year in efforts for more effective communication to increase public understanding of the recent accomplishments of the Association and its vital role in the future progress of medical education, research and health service.

#### **REPORT OF COMMITTEE ON EDUCATIONAL RESEARCH AND SERVICES**

GEORGE PACKER BERRY, chairman.

*Organization and Administrative Changes.* At the 66th Annual Meeting of the Association of American Medical Colleges, which was held at Swampscott, Massachusetts, on October 24-26, 1955, the name and format of the Committee on Teaching Institutes and Special Studies were changed in a way calculated the better to reflect the orientation and development of the Committee's manifold activities. It will be remembered that the Committee on

Teaching Institutes and Special Studies itself stemmed from two earlier Committees: the Committee on Student Personnel Practices and the Committee on Teaching Institutes. These two committees were combined in 1953 at the 64th Annual Meeting of the Association in Atlantic City.

Dr. George P. Berry continues to serve as chairman of the reorganized Committee on Educational Research and Services, and Dr. Helen H. Gee, the Association's Director of Research, serves as the Committee's secretary. To maintain close integration of the work of this Committee with all the other activities of the Association, the inclusion in the Committee's membership of the Association's President, Immediate Past-President and President-Elect has been continued.

To strengthen the Committee's research programs, the Executive Council approved the request that a Subcommittee on Evaluation and Measurement be appointed. The chairman of this Subcommittee, Dr. Thomas H. Hunter, serves on both the parent Committee and the Executive Council, thus providing for further integration. Membership on the Subcommittee is drawn both from the Committee on Educational Research and Services and from the ranks of specialized research talent available on the teaching staffs of member medical schools. The activities of both the parent Committee and the Subcommittee are dealt with in the present report, which has been prepared by the Chairman of the Committee on Educational Research and Services with extensive help from the Director of Research.

The chairman welcomes the present opportunity, on behalf of the members of the parent Committee and the Subcommittee as well as on his own behalf, to express appreciation to Dr. Gee for her untiring and imaginative efforts. She and the members of her staff have in a short space of time significantly enhanced the Association's services to the member medical colleges. New research ventures have already reached an exciting stage.

The development, on behalf of the earlier Committees by the Association's professional staff, of a series of collecting, recording, analyzing and reporting procedures was a major achievement during the 1950-55 period. These pro-



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cedures, supplemented by the growing body of data being made available through the Committee's program of Teaching Institutes, serve uniquely as the nation's primary source of information on many aspects of medical education. The information thus made available provides for the Association's member schools basic data for their use in their own individual programs, enables the Association to link medical and undergraduate schools, serves governmental agencies concerned with medical students and medical facilities, and makes possible educational research programs arising from a wide variety of sources. The successful establishment of a *modus operandi* has now enabled the Committee to shift the emphasis from *study to service*, thus allowing Dr. Gee and the other professional members of the Committee's staff to turn their attention to the development of basic research programs concerned with medical educational problems. It is in this important area that the Subcommittee on Evaluation and Measurements serves in a consultant capacity.

New appointments to the professional staff of the office of the Director of Research include Miss Shepley Nourse, who is serving as editorial supervisor for the publications of the Committee on Educational Research and Services, and Mr. Clifton W. Gray, who has been appointed as assistant director under Dr. Gee. He succeeds Dr. Roscoe A. Dykman. Mrs. Frances Halsey, who has replaced Mrs. Helen Morford and Miss Helen McBride, is administrative assistant.

**Finances.** Owing to the necessity of functioning during most of the year with an incomplete staff, the expenditures of the Committee on Educational Research and Services and of its staff were held for the fiscal year 1955-56 under \$90,000 exclusive of the Teaching Institutes, for which expenditures totaled approximately \$50,000. The continuation of a grant made to the Committee in 1953 by the Markle Foundation provides a principal source of support for the Committee's 1956-57 general operations. In addition, the Commonwealth Fund approved carrying forward \$25,000 from its 1954 grant to permit further development of studies on student selection as they bear upon integration with undergraduate train-

ing and student performance in medical school. The third (1955) and the fourth (1956) Teaching Institutes have been supported entirely from Commonwealth and National Heart Institute grants. Funds have been set aside by the National Heart Institute adequate for the partial support of the fifth Teaching Institute, which is to be held in 1957. Additional funds are needed, however, to finance the fifth Teaching Institute and the succeeding Teaching Institutes that have been planned.

The Committee, speaking for the Association, takes pleasure in expressing its appreciation for the generous support it has enjoyed from philanthropic foundations and governmental research agencies. Such support has been vital to the rapid expansion of the Association's activities in recent years.

**Teaching Institutes.** Following the third Teaching Institute on Anatomy and Anthropology, which was conducted at Swampscott, Massachusetts, on October 18-22, 1955, and which rounded out the study of teaching in the basic medical sciences, the Committee and the Executive Council reviewed the development of the whole Teaching Institute program. The chronology of the Teaching Institute series was given in the Committee's 1955 annual report, which was published in the December 1955 issue of the *Journal of Medical Education*. The philosophy and the significance of the Teaching Institutes are discussed by Dr. George P. Berry in the prefaces to each of the Teaching Institute reports, which are published as supplements to the *Journal* and have appeared in the July 1954, September 1955, and October 1956 issues.

At the Executive Council's meetings in Chicago during February 1956, the Council supported the Committee's belief that the *Zeitgeist* suggested turning for a time from concentration on the medical curriculum to consideration of the characteristics and problems of the medical student. The fourth and fifth Teaching Institutes, accordingly have been planned first to study, at the 1956 Teaching Institute at Colorado Springs, the appraisal of applicants to medical schools and all of the complexities of the selection process, and second to study, at the 1957 Teaching Institute, the evaluation and the problems of the medical student after he has been accepted by,



and has entered into, his professional educational program. The skillful Chairman of the Planning Committee for the 1956 Teaching Institute, which as the present report is being written is in the final stages of preparation, is Dr. John T. Cowles. The momentum that has been rapidly achieved during recent months and the promising structure that has been devised, speak eloquently for the diligent efforts of members of the several committees and subcommittees involved.

A significant contribution to each field of study taken up at the Teaching Institutes is being made annually through the production of survey research materials that are cooperatively developed by the Institutes' planning committees and the Association's staff and are analyzed in the office of the Director of Research. The American Association of Anatomists has already made extensive use of the data gathered in preparation for the third Teaching Institute, and the data gathered during 1956 on the selection procedures used at the several medical schools promise to be for years to come a definitive source of information, not only for medicine, but for higher education in general.

In addition to having compiled a detailed analysis of the selection process as established by administrative officers at the medical schools and as viewed by admission committees, the Committee's staff, working in close cooperation with the Planning Committee for the 1956 Teaching Institute, has obtained a nearly complete sampling of the attitudes and opinions of the students who, upon entering medical school this fall, have just experienced personally the entire process of selection and admission. Student responses were sent to the Committee's office between mid-September and mid-October, and although a complete analysis of the student view of the selection process will not be available until later in the present academic year, the Committee's staff is making use of every available facility to prepare general results of the inquiry for consideration by the participants at the 1956 Teaching Institute.

The series of Teaching Institutes developed by the Committee on Educational Research and Services has clearly become one of the most significant of the Association's many activities. The enthusiasm and the devotion with which

each succeeding group of planning committees and participants approaches and carries out its task from embryonic stages through execution and final publication of the reports, are insurance of an experience of lasting value for all who have been privileged to contribute to these programs. That the Teaching Institutes will prove beneficial to the dynamic growth and development of medical education everywhere, is assured by the large number of experiments in medical teaching that trace their origin to the Teaching Institutes.

**Medical College Admission Test.** Scores on the Medical College Admission Test (MCAT) were available for 91 per cent of applicants and 96 per cent of students accepted for entrance to medical school in the United States in the fall of 1956. The availability of a set of four yardsticks, representing the four scores on the test, against which nearly all entrants into the study of medicine can be compared, provides an important source of information concerning the characteristics of the medical student body. The Subcommittee on Evaluation and Measurement, at its February 1956 meeting in Chicago and at a meeting held at Princeton in May 1956 with representatives of Educational Testing Service—the agency through which the test is developed and administered—studied problems of test development and administration and explored ways of increasing the utility of data mobilized by these tests. It is clear that the MCAT has served a very useful purpose.

As an outcome of the Subcommittee's study, a program of test development has been planned that will be carried on by the Educational Testing Service under the guidance of the Subcommittee on Evaluation and Measurement. Although the present test, which was devised in 1948, has served as an aid in the selection of candidates for medical schools, the over-all development in methods of test construction suggests that its effectiveness can be increased.

In order that candidates for admission to medical school who have religious scruples about taking tests on Saturdays may be accommodated during the spring administration of the MCAT, arrangements starting in the spring of 1957 have been made for special Saturday evening or Sunday administrations. Additional assessments will be made to cover the cost of these administrations,

which will be held at only a few centers. Because of the unavailability of testing facilities on days other than Saturday at the testing centers located on college campuses, it is not feasible to change the regular test administration to any other day of the week.

Although proportionately only a few candidates take the MCAT more than once, information about the scores obtained the first time the test is taken should be available to the medical school personnel who utilize test information in their assessment of candidates. In order that individual schools may be spared the tedious and difficult task of systematically searching for evidence as to whether a candidate has been previously tested, candidates taking the test in the future will be queried on this point. Those who have previously taken the test will be flagged with an asterisk in Individual Report of Scores. Studies will be made to determine whether or not querying the candidates provides adequate control of this matter.

In order that admission committees may be assisted toward gaining maximal utility from information made available through the MCAT, publication of a handbook has been planned. In preparation for its publication, work is now going forward on the development of normative and validity data. Norms for male and female applicants, for students with varying amounts of undergraduate college training, for varying undergraduate major areas of study and for geographical regions, will be established.

In addition to the individual reports of scores of all tested students that are sent to all medical schools, summaries of MCAT test data are also widely distributed. Medical schools receive means and distributions of scores of all tested students who indicate their intention to apply to that school, as well as summaries of scores of students by undergraduate college attended. The annual applicant study provides information about the applicant group as related to MCAT performance and several additional reports sent to medical schools and undergraduate colleges are developed for, or utilize, MCAT information.

Evidence obtained from the October 1955 and May 1956 test administrations suggests that the population of college students from which medical students are selected may be shifting in terms

of intellectual characteristics. Although average verbal learning ability and level of achievement in the social sciences among recently tested candidates are higher than they were among candidates tested prior to October 1955, average quantitative ability and level of achievement in the natural sciences are lower. This evidence of a trend will be carefully observed in coming test administrations and its implications explored.

*Reports to Medical Schools.* Questionnaires sent to the participants who will be at the 1956 Teaching Institute on Evaluation of the Student included inquiries concerning the attitudes toward, and the extent of use made of, periodic reports that are prepared for the medical schools by the Office of the Director of Research. A tabulation of the replies to these questions is given in Table 1.

It should be realized that 8 per cent of the medical schools represented in the table are Canadian schools, which do not receive most of these reports, and find relatively little application to their own problems in the reports they do receive. Regardless of whether one assumes that these Canadian schools account for the majority of negative and non-response entries, it is obvious that the present series of reports made to medical schools must be considered a valuable—perhaps indeed essential—service to the membership, which the Committee is enjoined to continue.

The Committee plans to limit issuance of Undergraduate Origins Reports (see No. 5 in Table 1) to alternate years. These reports were last issued for the 1950-51 freshman class and will next be issued in 1957 for the 1952-53 class. The 1952-53 class reports will include a considerable amount of new information made available by virtue of the fact that this class was selected for intensive study in connection with another of the Committee's research activities (see the section in the present report on *Research Development*).

*Applicant Information.* The 1955-56 Applicant Study will be published in the December 1956 issue of the *Journal of Medical Education*. Information contained in this report is more widely used and sought after than any other compilation of data produced by the Committee. The reporting procedure that underlies the study's production is a typical example of the excellent cooperation

TABLE 1  
Present Use and Desire for Continuance of Reports Provided by the  
Committee on Educational Research and Services

Report	Present Use of Reports			Desire for Continuance of Reports		
	Used	Not Used	No response	Yes	No	No response
1. Acceptance lists (announcing acceptance of applicants to all schools).	91*	9	0	91	6	3
2. Irregularity reports (reports of irregularities committed by applicants).	98	1	1	98	0	2
3. Reports on applications of your applicants to other schools and number of applicants accepted by you who enter other schools.	81	17	2	82	10	8
4. Reports of average MCAT score of your applicants from each undergraduate college as compared to the average MCAT score of applicants to all medical schools from the same undergraduate school.	80	17	3	84	7	9
5. Undergraduate origins reports (three reports for each graduated class: (1) proportion of irregulars and dropouts among medical students from each undergraduate school; (2) comparison of performance of students from each of the principal undergraduate schools supplying students to each medical school; (3) complete statistical summary for the class).	84	14	2	90	4	6
6. Applicant studies (annual published reports concerning number of applicants and applications to each medical school, geographical distribution of applicants, MCAT scores of applicants filing various number of applications, etc.)	92	5	3	92	1	7

\*Percentages in each category are based on the total number of 91 and add up to 100 per cent across the page.

the Association has received from the medical schools, which alone make representative services of this kind possible. If our individual schools did not co-operate as wholeheartedly as they do, an effort to issue reports like this one would be a misleading and costly failure.

The 1955 applicant group increased 3 per cent over 1954 to a total of 14,937, thus reversing a five-year trend during which the number of applicants had decreased each year. Although the actual increase in number of applicants during 1955 was negligible, the changed direction presages annual increases that are expected to result in an applicant population of 21,000 students in 1961. A potentially disturbing accompaniment to the slight increase in applicants for 1955 was a much more substantial increase in number of applications submitted. These increased 14 per cent over the previous year, to a total of 54,161. The 3.6 average number of applications filed per individual applicant equaled the 1949-50 average, only 0.1 short of the peak year, 1950-51.

*Admission Handbook.* Nearly 10,000 copies of the 1956 *Admission Requirements of American Medical Colleges* were distributed to medical schools, applicants, undergraduate college and high school advisers, guidance agencies and libraries. The 1957 handbook, which

features increased refinement in detail concerning premedical preparation and admission procedures, was published on September 7, 1956. Awareness of the availability of this unique compendium has spread rapidly among faculty members and interested students during the two years since the format was revised and the handbook expanded. With awareness has come enthusiastic reception.

Increased effort is currently being made to inform high school and undergraduate college advisers of this definitive source of information, for it is undoubtedly true that dispelling myth and making available accurate information about requirements, objectives, selection procedures and facilities for medical education will aid them in encouraging promising young people, who may—when misinformed—fail to consider medicine as a potential career.

*Undergraduate Reports.* In February 1956, two reports were sent to all undergraduate colleges providing information concerning the accomplishments in medical school of their former students. One report showed applications, success in obtaining acceptances, and first-year medical school performance of students recently enrolled in the undergraduate colleges. The second report showed the four-year accomplishment of students

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who entered medical schools in 1950-51.

In May 1956, a report on MCAT distributions and averages was circulated to the undergraduate colleges from which more than 10 students had been tested in a three-year period. An inquiry accompanied this report requesting the colleges to express their opinions concerning issuance of these reports at two- or four-year intervals rather than annually as in the past. Over 100 undergraduate college deans and advisers responded to the inquiry; nearly all requested that reports be issued no less often than at two-year intervals, and all expressed appreciation to the Committee for providing them with the information contained in the various reports. Based on these replies, arrangements were made at the Subcommittee's May meeting at Princeton with the Educational Testing Service to develop four-year accumulations of distributions of MCAT scores, which will hereafter be issued every two years but will cover a four-year period.

*Agreement on Admission Procedures.* For many years, the Association has been striving to make easier for the student his transition from college to medical school. At the annual business meeting on October 20, 1954, the third day of the 65th Annual Meeting of the Association, at French Lick, Indiana, the provisions set forth herein were adopted by the Association with but one dissenting vote. Because there has been some confusion in recent months, owing to apparent misunderstanding at a few schools of the provisions adopted by the Association, the Executive Council has instructed that these provisions be republished. Before quoting the procedures from the published proceedings of the 65th Annual Meeting, as printed in the *Journal of Medical Education* for December 1954 (Vol. 29, No. 12, pp. 73-74), the Executive Council thought it would be helpful were a brief review to be made of the successive actions that have led to the present agreement.

In order to protect the best interests of both the applicants and the medical schools without unnecessarily restricting the freedom of either, the Executive Council instructed the former Committee on Student Personnel Practices and its successor, the Committee on Teaching Institutes and Special Studies, to study the complicated matter of admission pro-

cedures and to devise the provisions that have come to be called "traffic rules."

The Executive Council, reflecting the widely held views of the member colleges, has been concerned about the undesirable pressures exerted by some medical schools upon their applicants. Thus, at the meeting of the Council in November 1949, it was the consensus that medical colleges should not select students more than one year in advance of their actual matriculation; i.e., more than one year before the start of professional study. Similarly, in Chicago two years later, the Council again went on record as recommending strongly against issuing acceptances, even provisional acceptances, more than one year prior to actual matriculation. In 1952, the Council again recorded its disapproval of the practice of offering definite acceptances and requiring substantial reservation fees prior to the January 1 preceding entrance to medical school. In October 1953 at Atlantic City, the membership of the Association supported without dissent the Executive Council's recommendation that no acceptances be offered more than one year in advance of actual matriculation. Finally, to give substance to these repeated recommendations, the procedures now referred to as "traffic rules" were brought before the meeting at French Lick and adopted almost unanimously.

The traffic rules to be quoted below will operate fairly only when applicants as well as schools adhere to their spirit. This point was emphasized at the Open Hearings at Colorado Springs on November 12, 1956, during the 67th Annual Meeting of the Association.

*"Whereas,*

"The date of final acceptance of the applications of new students with the filing of a nonrefundable deposit varies widely among member institutions of the Association.

*"Whereas,*

"This variation in acceptance date makes it very difficult for the average student applying to four or more medical schools to make sure that he is making the best choice of schools available to him.

*"Whereas,*

This matter has been carefully studied by the Committee on Teaching Institutes and Special Studies and its recommendations have had further study by the Ex-

ecutive Council, be it therefore,

*"Resolved,*

*"That the membership of the Association of American Medical Colleges approves the following admission procedures:*

*"1. No place in the freshman class shall be offered to an applicant more than one year before the actual start of instruction for that class.*

*"2. Following the receipt of an offer of a place in the freshman class, a student shall be allowed at least two weeks in which to make a written reply to the medical school.*

*"3. Prior to January 15, this written reply may be either a declaration of intent or a formal acceptance of the place offered. When the applicant has declared his continued interest within the two-week period, the medical school agrees to hold a place for him until January 15, unless he indicates that he has been accepted elsewhere and withdraws his application. He may, of course, and often will, enter into formal arrangements with the one medical school of his choice before January 15. Because of the wide variation in the acceptance dates of different medical schools, some students will wish to change their minds after filing a declaration of intent and it is understood that nothing unethical is implied when a student does so change his mind. In such an event, the student is obligated to send prompt written notification to every school holding a place for him.*

*"4. The payment of a nonrefundable deposit shall not be required of any application prior to January 15.*

*"5. When a student files a declaration of intent, a refundable deposit—not to exceed \$100—may be required at the discretion of the school granting the acceptance. Such deposits will be refunded without question upon request made prior to January 15.*

*"6. The deposit, when required to hold a place in the freshman class after January 15, shall not exceed \$100.*

*"7. By January 15 each applicant for whom a place in the entering class is being held must either accept the offer formally and pay any required non-refundable deposit or withdraw his application.*

*"8. Following January 15, an applicant offered a place in a freshman class must either formally accept or refuse the*

place, but he shall have at least two weeks in which to decide. Deposits made after January 15 shall be nonrefundable.

*"9. To assist the medical schools, the AAMC office will compile a list of the students who have formally accepted a place in the freshman class. This list will be distributed about February 1 and will be kept current by frequent revisions.*

*"ACTION: This resolution was passed with a dissenting vote of one."*

#### **SPECIAL SERVICES.**

**A. Government Services.** The Selective Service System has requested that medical schools provide each year a list of the names, selective service numbers and classifications of all new medical students. The collection and transmittal of these data to the Selective Service System, a process that involves extended exchanges of correspondence with individual schools, is another of the services currently being provided by the Committee. Last year the status of every entering freshman in each of the medical schools in the United States and Puerto Rico and of all United States citizens attending Canadian schools was determined and reported. Many schools have submitted lists for the current year, and are already well advanced toward clarifying the status of "incomplete data" cases.

For several years, the Committee has assisted the Office of the Assistant Secretary of Defense in surveying fourth-year medical student liability for military service. Results of these surveys serve as a basis for determining future action in carrying out the Armed Forces Reserve Medical Commissioning and Residency Program. These surveys also provide for students an opportunity to register their preference with respect to the fulfillment of their military obligations. Some difficulty has been experienced in making the opportunity to register a preference available to all seniors, because program scheduling and geographic shifts vary widely for seniors both within and among schools. A revision in the circularization procedure is being considered jointly by the Office of the Assistant Secretary of Defense and the Committee in order that all senior medical students may be assured an opportunity to register their preferences.

**B. Research Services.** The Director of Research receives almost daily requests



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for information that is available in her files from completed studies. In addition, she and her staff have assisted more than a dozen different agencies and schools during the past year by providing data and data analysis for special reports and research projects. Requests for these services have been received from medical schools, undergraduate colleges, foundations, state health organizations and medical associations. As the volume and variety of information available in the office increases, these services gain in importance both to educational, professional, governmental and civic organizations and to the staff of the Committee, whose function it is to provide them. Significant costs incurred in the development of these data and reports are borne by the agencies seeking the information.

**Research Development.** Publication of the study of women in medicine has been delayed for several months, owing to a shortage of staff time. The report is now in its final stages of preparation for submission for publication, and is expected to appear in an early issue of the *Journal of Medical Education*. Preliminary results of this study were given last year in this Committee's report.

A detailed progress report was also made last year covering the bibliography on admission to medical school, which has been in preparation since 1954. The bibliography is now virtually complete and up to date, and the Committee has taken under advisement the question of its publication.

In Spring 1956, the Director of Research began work on the development of a long-term, intensive study of the characteristics of students of medicine. The first project in this program is a study now underway that is being conducted in cooperation with the Institute of Higher Education at the University of California. This Institute, supported by a Carnegie grant, is under the direction of Dr. Thomas R. McConnell. Details of the "Carnegie project" are given in the report of the Director of Research.

Interest and personality test data were obtained last spring on 1955-56 seniors in 21 medical schools. These 21 schools and 6 additional schools cooperated this past fall in administering the same battery of tests to entering freshmen. These data make possible both cross-sectional and longitudinal studies of relationships

between measured interest and personality characteristics and progress through four years of medical education. The interest and good will manifested by the medical schools and the faculty members who administered these tests were outstanding. The Committee and its staff take the present opportunity to express their appreciation.

The 1952 and 1956 freshman classes were selected to provide the source materials for the "Carnegie study" and for an entire series of research projects to follow. Survey, prediction and methodological studies utilizing these source materials are already at various stages of planning, design and execution. High on the list of studies to be made from these data is an investigation of the relationship between medical school performance and amount of undergraduate educational experience. The level of ability of the students will be controlled statistically. Undergraduate origins reports will be made and an analysis of the history of the 1952 freshman class will be published. Other studies will be made to investigate the predictability of medical school achievement and dropout rates and of the importance of situational factors in the medical school setting as a variable in prediction. Methodological studies are needed to determine effective and efficient methods of combining information that may be used in predicting achievement, potential success in various types of careers in medicine, and in specialty fields of practice.

The research projects sketched above and others that are anticipated will be given material assistance through the cooperation of staff members who are directing related projects at their own schools. Arrangements for exchange of data and research results have already been made with several of the schools that participated in the spring and fall testing programs. This program of research is planned with a view toward contributing to medical education basic information that can aid in the development of sound methods of selection, training, and curriculum improvement. Magic formulae for prediction will not be found, but it is anticipated that some contribution can, and will, be made to the steady improvement of medical educational and student personnel practices.



## REPORT OF COMMITTEE ON VETERANS ADMINISTRATION— MEDICAL SCHOOL RELATIONSHIPS

JOSEPH M. HAYMAN, chairman:

Your committee held no meetings during the year. No problems were referred to the Committee. In September, the members of the Committee and the V. A. Central Office were asked if they knew of any problems which should be considered by your Committee. On the basis of replies, a meeting of the Committee was held at 9:30 A.M., Sunday, November 10, at the Broadmoor Hotel, and an open meeting at 4:00 P.M. on November 11.

Your Committee can report that the recommendation made last year, that the Veterans Administration be urged to phase out internships in Veterans Hospitals except under unusual circumstances, is apparently under way. The internship program at Houston, Texas, was discontinued June 30, 1956 and that at Little Rock will be discontinued June 30, 1957. Two of the larger programs have indicated that they are dissatisfied, and have been urged to discontinue the program. Your Committee believes this indicates close understanding between the V. A. and the Association, and represents satisfactory progress.

The Committee considered the new Clinical Investigator Program. It has received enthusiastic endorsement from all dean's committees who have replied to the Central Office. In this endorsement your Committee heartily concurs. It urges all dean's committees who have not replied to the request from Central Office for an expression of opinion and comment on the program to do so.

As a result of discussions at the open meeting, your Committee would urge all dean's committees, who are not already familiar with it, to acquaint themselves with Policy Memorandum No. 2, January 30, 1946. This defines the duties and responsibilities of the dean's committee for the resident training program in affiliated hospitals. Since the Medical School—VA relationship is one of mutual cooperation, neither a resident program in a university hospital nor one in a VA hospital should be subordinated for the benefit of the other. It is also the responsibility of a dean's committee to assure itself that the training in a VA residency program is entirely sat-

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isfactory in all respects, and if this cannot be accomplished, to recommend discontinuance of the program.

## CHANGES IN ARTICLES OF INCORPORATION AND BY-LAWS

The following changes in the Articles of Incorporation and By-Laws were approved unanimously:

1. (Section 3, page 14) *Officers*: The officers shall be a President, a President-Elect, a Vice President, an *Immediate Past President*, a Secretary, a Treasurer, and an *Executive Director* . . . The Secretary and the *Executive Director* shall be appointed by the Executive Council.

2. (Section 6, page 16) The Secretary and the *Executive Director* shall be ex-officio members without a vote, but shall attend all Council meetings except closed executive sessions.

3. (Section 10) *Dues*: Institutional Members (four year schools) \$1,000; *Institutional Members* (two-year schools) \$500.

## ELECTION OF OFFICERS

Officers elected and appointed for 1956-57 are as follows: Dr. John B. Youmans, Vanderbilt, president; Dr. Lowell T. Coggeshall, Chicago, president-elect; Dr. Gordon H. Scott, Wayne, vice president; Dr. Dean F. Smiley, AAMC, secretary; and Dr. Stockton Kimball, Buffalo, treasurer. New members of the Executive Council are: Dr. Harold S. Diehl, Minnesota; and Dr. John McK. Mitchell, Pennsylvania. Dr. Stanley W. Olson, Baylor, will fill out Dr. Coggeshall's unexpired term.

## 68th ANNUAL MEETING

The 68th Annual Meeting is scheduled for October 21-23, 1957, at the Chalfonte-Haddon Hall, Atlantic City, N. J.

## FILM PROGRAM

Two film programs were presented Tuesday evening. The program included "All My Babies," a documentary, and "Microglia," "Oligodendroglia," and "The Motion Picture in Medical Education," teaching films. Dr. J. Edwin Foster of the Medical Audio-Visual Institute, arranged the program.

**REPORT OF EXECUTIVE COUNCIL  
ACTIONS AT MEETING HELD  
NOVEMBER 13, 1956**

1. Dr. John B. Youmans of Vanderbilt was elected Chairman of the Executive Council for 1956-57.

2. Appointments to the Association's Standing Committees were made.

3. The Secretary was instructed to prepare a questionnaire with the assistance of Dr. Edward L. Turner and Kurt Borchardt, which Mr. Borchardt feels still is needed to complete the study he is making for the House of Representatives' Committee on Interstate and Foreign Commerce regarding the need for federal aid in medical school construction 1957-62.

4. A statement on the internship prepared by the Committee on Internships, Residencies and Graduate Medical Education was approved and ordered published in *The Journal of MEDICAL EDUCATION*.

5. The recommendation of the Committee on Internships, Residencies and Graduate Medical Education that a study be initiated of the internships connected with medical schools was approved with the suggestion that if funds are needed for such a study the Committee return to the Council with a statement of that need.

6. The Council concurred with the Committee on Internships, Residencies and Graduate Medical Education that the Office of Defense should make every effort to base the choice of interns for deferment for residency training under the Berry plan upon some merit system rather than on merely choice by lot.

7. The Committee on Planning for National Emergency was requested to attempt to prepare basic plans for the consideration of the Executive Council at its next meeting February 8, 1957.

8. The Council approved the following statement of the Committee on Medical Care Plans: "The Committee recommends — that appropriate steps be taken at the state and national levels to protect medical education from the potentially deleterious effect on clinical teaching of the new public assistance medical care program." Dr. Youmans was requested to take this matter up with the Department of Health, Education and Welfare and to report back to the Council the results of such consultation.

9. The Secretary was instructed to poll the four-year medical schools to determine how many additional students might be accommodated in their third year class if well qualified students were available.

**REPORTS ON EXPERIMENTS  
IN MEDICAL EDUCATION**

Eleven papers were presented, from 10 schools, on experiments in medical education. A paper on "General Practice in North Carolina and Its Relation to Medical Education," was also presented. The final group of these reports was presented on Wednesday, November 14.

**FOREIGN MEDICAL EDUCATORS PRESENT**

1. Dr. Agerico Sison, Dean, University of Philippines.
2. Dr. Jose Cuyegkeng, College of Medicine, University of the East, Quezon City, Philippines.
3. Musa Khalil Ghantus, American University of Beirut, Beirut, Lebanon.
4. Dr. Alberto Hurtado, Faculty of Medicine, Lima, Peru.
5. Kwik Hok Tiang, Airlangga University, Surabaya, Indonesia.
6. Dr. Louis Monteiro, T. N. Medical College, Bombay, India.
7. Dr. Virgilio R. Ramos, Dean, Faculty of Medicine, University of Santo Tomas, Manila, Philippines.
8. Dr. Jose R. Reyes, North General Hospital, Manila, P. I.
9. Dr. S. G. Vengsarker, Dean of Medical College, Bombay, India.
10. Lauro H. Panganiban, Dean, Institution of Medicine, Eastern University, Manila, Philippines.
11. Dr. Bathan, Dean, Rangoon Medical College, Rangoon, Burma.
12. Dr. Floria Velasquez, Actg. Dean, Manila Central Medical College.
13. Dr. Samuel Middleton, Veterans Administration, Chile.
14. Dr. Leslie G. Kilborn, Hong Kong.
15. Dr. R. M. Kasliwal (WHO), Dean, S. M. S. Medical College, Jaipur, India.
16. Dr. Tranquilino Elicano, Chrmn., Bd. of Medical Examiners, Manila, Philippines.
17. Dr. Julian Paguyo, Supt. of Private Medical Education, Dept. of Education, Manila, Philippines.

# NEWS DIGEST

## **MEND News**

At a meeting of the MEND Committee held at Colorado Springs in connection with the AAMC Annual Convention, Dr. James R. Schofield, Assistant Dean of the Baylor University College of Medicine, was named to continue in his present capacity of National Coordinator of the MEND Program for an indefinite period of time. Dr. Schofield will continue his MEND activities in addition to his responsibilities at Baylor. Donald S. Smith II will continue to act as a full-time administrative assistant to Dr. Schofield and be responsible for the operation of the Washington MEND Office.

One of the current undertakings of the National Coordinator's Office is the preparation of a "MEND Reference List," a bibliographical listing, by subject, of publications which the medical colleges may find to be of value for teaching in areas related to military and disaster medicine. Publication of the "MEND Reference List" is now under way and it is anticipated that this list should be in the hands of all MEND Coordinators within the next few weeks. Present plans are to forward copies to medical colleges which are not affiliated with the MEND Program as well.

Also in the planning stage is a meeting of MEND Coordinators to be held in connection with the Congress on Medical Education and Licensure in Chicago in early February. When final planning is completed, information will be forthcoming to all MEND schools.

Four representatives from MEND-affiliated medical colleges attended the one-week course in "Management

of Mass Casualties" conducted by the Army at the Brooke Army Medical Center in San Antonio, Texas during the last week in November. The next "Management of Mass Casualties" course is scheduled for the Walter Reed Army Medical Center on 25-30 March 1957. There are still spaces available for representatives of MEND schools who desire to attend this program; those wishing to do so should write directly to the MEND Washington Office. Looking ahead, the subsequent "Management of Mass Casualties" course is now scheduled for June 10-15, 1957, also to be held at the Walter Reed Army Medical Center. Spaces for MEND representatives have been allocated for this June program and some spaces still remain unfilled.

## **Australian Medical School**

A new medical school is opening in Perth, Australia. Dr. David Sinclair, associate professor in the department of anatomy at University Museum, Oxford, has been appointed head of the department at Perth. Dr. Gordon King, head of the department of obstetrics and gynecology of the medical school in Hong Kong, will carry a similar responsibility at Perth. (An article by Dr. Sinclair on "British Medical Education and the General Medical Council" appears on page 26 of this issue.)

## **Fourth Gerontological Congress**

There will be a meeting of the Fourth Gerontological Congress in Merano, Italy on July 14, to reveal findings, relate experiences and discuss subjects pertaining to our aging population. Laymen are also invited

to attend this meeting. All abstracts of papers to be presented at this Congress must be submitted to the North American Committee of Cooperation for review before acceptance. The chairman of this committee is Dr. E. V. Cowdry, Washington University School of Medicine, 660 S. Kingshighway, St. Louis, Mo. Convoys Travel Agency (1133 Broadway, New York 10, N. Y.) has been appointed the official travel agent for this Congress and will also handle the registration.

### **Atomic Energy Commission**

Dr. Harry Davis Bruner has been appointed Chief of the Medical Branch of the Commission's Division of Biology and Medicine. Dr. Bruner succeeds Dr. Roy E. Albert, who has accepted a research and academic appointment at George Washington University, Washington, D.C.

### **100th Birthday**

The Academy of Medicine of Cincinnati has invited all physicians, their families and their patients to its 100th birthday party, February 27-March 5. In order to officially observe the occasion, a Health Museum and Exposition will be established in Cincinnati's Music Hall. One hundred and seventy-five health and scientific exhibits representing medicine, hospitals, research centers, public health, nursing, pharmacy and industry will be displayed. Notable among these exhibits will be an atomic energy exhibit from the American Museum

of Atomic Energy entitled "Atoms for Peace."

The ribbon cutting ceremony for the Centennial Exposition will be conducted by the Honorable William O'Neil, Governor of the State of Ohio at 9 A.M. on Wednesday, February 27. Dr. Paul D. White and Dr. Walter Alvarez have accepted invitations to be among the guest speakers.

### **China Medical Board Appropriations**

Appropriations by the China Medical Board of New York, Inc., for aid to medical and nursing schools in the Far East for the year ended June 30, 1956 were the largest in the last five years. The combined total of grants amounted to \$1,053,500. This included aid to four medical schools in the United States: Louisiana State University School of Medicine, Stanford University School of Medicine, Vanderbilt University School of Medicine and the University of Wisconsin Medical School.

### **Dr. Coggeshall on Nixon Mission**

Dr. Lowell T. Coggeshall, president-elect of the AAMC, was among those who accompanied Vice President Richard M. Nixon on his mission to Austria to assist with the Hungarian refugee problem.

Dr. Coggeshall, who is dean of the Division of Biological Sciences at the University of Chicago, acted in his additional capacity as special assistant for health and medical affairs in the Department of Health, Education and Welfare. He studied the medical and health needs of the refugees.

## **College Briefs**

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### **Alabama**

DR. JAMES J. DURRETT, dean of the medical college from June 1951 to February 1955 and recently consultant to the president of the university, has resigned. Dr. Keehn W. Berry

was promoted from assistant professor to associate professor of clinical medicine. Dr. RICHARD CARTER, Dr. H. BROOKS COTTEN and Dr. ALWYN A. SUGERMAN were appointed assistant professors of clinical medicine. Dr.

PERRY H. HITCHCOCK received an appointment as assistant professor of anatomy on a voluntary basis.

### Colorado

Dr. ROBERT J. GLASER, formerly associate dean of the Washington University School of Medicine, St. Louis, has been appointed dean of the school of medicine. Dr. Glaser succeeds Dr. ROBERT C. LEWIS, who retired as dean on June 30, after 40 years of service as a member of the faculty. Dr. Glaser is scheduled to assume his new post about February 1, and will join the Medical Center staff as a 10-year building plan is projected, which includes an expansion of the school of medicine, a 150-bed hospital addition and the development of a dental school.



DR. GLASER

### Columbia

Dr. GILBERT P. SMITH has been appointed associate dean for dental and oral surgery and executive officer of the dental and oral surgery department. He will also hold a seat on Columbia's faculty of medicine.

### Duke

Dr. WILLIAM H. KNISELY has received a \$63,337 Senior Research Fellowship from the National Institutes of Health. His fellowship is one of 44 five-year awards made to promising young scientists in the United States and Canada under a new Public Health Service program. Dr. Knisely, an instructor in medicine and anatomy, is studying small living blood vessels in human beings and animals. His research is aimed at a better understanding of how these blood vessels function during health and illness.

Research aimed at long-time preservation of living tissue from

the human eye is now in progress under the provisions of a Public Health Service grant. Centering around the preservation of corneal tissue, the project is headed by Dr. NICHOLAS G. GEORGIADIS, assistant professor of plastic surgery, and Dr. FREDERICK W. STOCKER, associate professor of ophthalmology. Other faculty members associated with the project are Dr. DUNCAN C. HETHERINGTON, professor of anatomy, and Dr. IVAN W. BROWN Jr., associate professor of surgery.

### Albert Einstein

A gift of \$500,000 presented by the D. S. and R. H. Gottesman Foundation, has been received for the establishment of the library. Construction of the library is expected to begin shortly on the medical school's 16-acre site at Morris Park Avenue and Eastchester Road, the Bronx.

### Florida

Dr. MELVIN FRIED, assistant professor of biochemistry, has recently been awarded a grant of \$50,000 by the National Science Foundation which will enable Dr. Fried to continue a program of basic research on the biochemistry of proteins. It is one of the first awards from the newly created senior postdoctoral fellowships of the Foundation and will support the recipient over a five-year period.

### Harvard

Dr. MARTHA MAY ELIOT has been appointed professor and head of the department of maternal and child health in the faculty of public health, effective January 1, 1957. Dr. Eliot has relinquished her position as Chief of the U. S. Children's Bureau to accept her new post at Harvard.

### Jefferson

Dr. HANS G. KEITEL has been appointed professor and head of the department of pediatrics. Dr. Keitel spent the last four years at the National Institutes of Health and had



former academic affiliations with the Columbia Medical Center, Babies' Hospital, New York University, and the Children's Medical Service of the Bellevue Hospital in New York City.

### **Medical Evangelists**

Gifts and grants totaling over three quarters of a million dollars have been received during a recent three-month period. Included in the amount was a gift of \$500,000 from the Ford Foundation.

### **Michigan**

Dr. CARL V. WELLER, chairman of the pathology department for 25 years died December 10, in Ann Arbor. For many years he served state hospitals which had no pathologist.

Over 50 administrative officials from Michigan hospitals attended an Institute for Hospital Public Relations sponsored by the Michigan Hospital Association in cooperation with the University of Michigan on December 13-14. It is the first Institute of its kind to be held in Michigan, and will include discussions of the needs, and planning for active public relations programs on the part of hospitals.

A grant of \$605,000 has been received from the W. K. Kellogg Foundation, Battle Creek, to cover one-half of the cost of providing additional research facilities for the school of public health. The Kellogg grant, along with a matching grant of \$605,000 from the Federal government's National Advisory Council on Health Research Facilities, will be used to construct 33,000 additional sq. feet of research facilities for the school as an addition to the public health building. The addition is expected to be completed by July 1958.

### **Minnesota**

Dr. PAUL M. ELLWOOD, assistant medical director of the Elizabeth Kenny Foundation, and instructor, department of pediatrics, was special adviser to the Argentine Ministry of

Health during the devastating poliomyelitis epidemic in that country recently. While in Argentina, he participated in the International Symposium on Poliomyelitis in Rio Cuarta.

Dr. WILLIAM F. MALONEY has resigned his position as assistant dean in order to accept the position of dean of the Medical College of Virginia, Richmond. He will assume his new post next month. Dr. Maloney recently returned from South Korea where he spent three months as the medical school's representative to the National University of Seoul Medical School.

Nine members of the faculty received grants for research in cardiovascular disease under the joint support program of the American Heart Association and the Minnesota Heart Association. Those receiving grants include Dr. ELLIS S. BENSON, assistant director of hospital laboratories, Dr. H. MEAD CAVERT, assistant professor of physiology, Dr. RICHARD A. DEWALL, surgery research assistant, Dr. ROBERT A. GOOD, professor of pediatrics, Dr. ANCEL KEYS, professor and director of the laboratory of physiological hygiene, Dr. RICHARD T. SMITH, assistant professor of pediatrics, Dr. HENRY L. TAYLOR, associate professor of the laboratory of physiological hygiene, Dr. LOUIS TOBIAN, associate professor of medicine, and Dr. RICHARD VONKORFF, research fellow in pediatrics.

### **Nebraska**

Dr. RONALD WAGGENER, fellow in radiology, has been selected by the American Cancer Society as the recipient of a travelling fellowship in radiotherapy. Dr. Waggener will be sent to Europe for a year's "post-graduate course" in radiation therapy, studying at radiation centers in various countries. The purpose of the fellowship is to train young doctors in foreign centers, in which a large concentration of patients is available. There patients are under the complete care of radiotherapists, while at the same time, treatment is integrated with other specialties.



### **Northwestern**

A \$600,000 fund for research into the cure and treatment of rheumatic fever and related diseases has been established at the medical school by Samuel Sackett of Evanston. Mr. Sackett's gift will be used to expand a research and treatment program initiated in 1954 by a grant from the Samuel Sackett Foundation. The program will be under the direction of Dr. GENE H. STOLLERMAN, who joined the faculty in 1955.

### **Oregon**

Gifts and grants totaling \$105,642 have been received since early September to support educational, research and service programs. Of the total, \$56,088 came from the Public Health Service and \$49,554 from other sources. Largest individual grants went to Dr. R. F. LABBE, assistant professor of biochemistry in support of research; Dr. T. B. FITZPATRICK, professor and head of the division of dermatology, and Dr. H. S. MASON, associate professor of biochemistry, for the continuance of his research on skin cancer.

### **Pennsylvania**

Plans are under way to enlarge and remodel the Rehabilitation Center of the hospital of the University of Pennsylvania in order to increase its services to disabled and physically handicapped persons and its facilities for teaching and research in rehabilitation. This construction program will double the center's present floor space. Cost of the project will approximate \$450,000 and of this sum, two-thirds was contributed by individuals and organizations interested in rehabilitation, and one-third was obtained from Federal sources under the Hill-Burton Act, through approval by the Commonwealth of Pennsylvania hospital construction authority. The center will be named in honor of Dr. George Morris Piersol, dean of the graduate school of medicine and professor emeritus of physical medicine and rehabilitation.

Dr. Piersol was the first chairman of the university's Rehabilitation Commission.

### **Rochester**

Dr. LAWRENCE E. YOUNG, a member of the faculty since 1943, will succeed Dr. WILLIAM S. McCANN as Charles A. Dewey Professor of Medicine and chairman of the department effective July 1, 1957. Dr. Young will also be physician-in-chief of Strong Memorial Hospital, teaching hospital of the medical school. Dr. McCann, who has headed the department of medicine since the school of medicine and dentistry was opened in 1925, will become professor emeritus on July 1.

### **St. Louis**

The department of microbiology has been reorganized under the direction of Dr. R. WALTER SCHLESINGER, formerly at the Public Health Research Institute of the City of New York, Inc. In addition to Dr. LEONARD F. LASKOWSKI and Dr. EDWIN L. MINARD, who have been members of the department for several years, the following have been appointed: Dr. MAURICE GREEN, assistant professor, Dr. KARL G. LARK, instructor, and Dr. NORMAN E. MELECHEN, instructor. The department has undergone complete physical reconstruction, especially of its research facilities.

### **Temple**

Three grants totaling \$63,684 have been received from the Public Health Service. The grants were awarded to Dr. JULIUS SCHULTZ, assistant professor of research biochemistry and a staff member of the Fels Research Institute, Dr. VALY MENKIN, associate professor of experimental pathology, and Dr. MORTON J. OPPENHEIMER, professor and head of the department of physiology.

### **Tennessee**

Dr. PHINEAS JACK SPARER, chief of psychiatry and psychosomatics at Memphis Veterans Hospital, has

joined the staff as professor of psychiatry and of preventive medicine. Dr. RALPH F. MORTON, instructor in medicine, is the first recipient of the Riley Houck Investigatorship established by the Tennessee Heart Association. The award carries a stipend of \$7,200 for the first year and will enable Dr. Morton to continue his research on cardiovascular problems.

### **Texas**

Arrangements have been made with the Harvey Travel Bureau, 2005 W. Gray, Houston, Texas, for a postgraduate medical cruise to the Caribbean. The ship will leave from Galveston, Texas on February 8, and return to Galveston on February 22, 1957. The ports of call include Port au Prince, Kingston, Curacao, LaGuaira, Cristobal and Havana. Five professors are presently being chosen to accompany the group, one each in surgery, internal medicine, pediatrics, cardiology and obstetrics and gynecology. The ship will be the Antilles, of the French Line. Specific details of the cruise may be secured

from D. Stuart Godwin Jr. of the Harvey Travel Bureau.

### **Wayne**

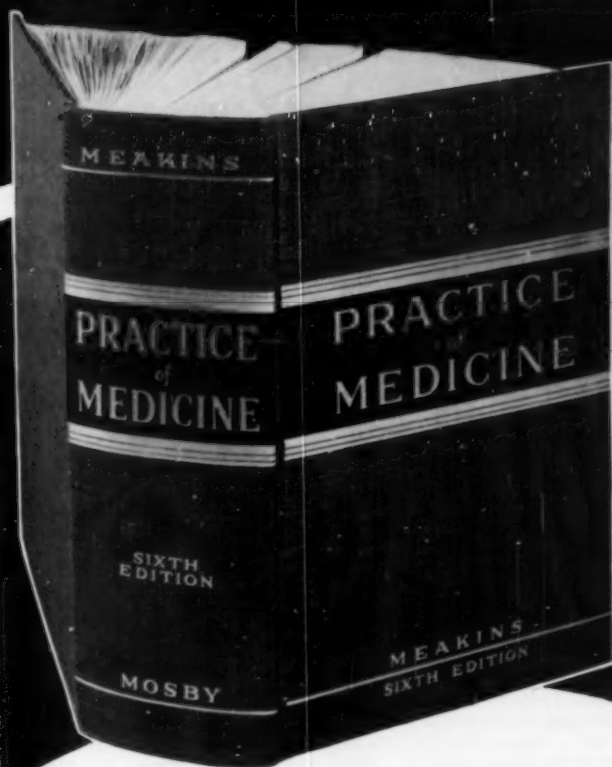
WALTER H. SEEGER, chairman of the department of physiology and pharmacology is the recipient of an award of \$17,000 from the Commonwealth Fund of New York for his work in blood clotting diseases. This award is newly created and designed by Commonwealth to allow scientists freedom from teaching and administrative duties to spend at least a year for uninterrupted research, study and lecturing.

A proposal designed to increase the number of medical students was recently passed at a meeting of the university's Board of Governors. The medical school proposal will increase enrollment from the present 75 to 125.

### **Yale**

Dr. LYTT I. GARDNER has been appointed professor of pediatrics. He was formerly professor of pediatrics at the State University of New York College of Medicine in Syracuse.

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# Audiovisual News

## NEW FILMS

### Surgical Film Series

The following series of films were prepared as (and entitled) A Photographic Supplement for Clinics or Conferences by Hilger Perry Jenkins, M.D., F.A.C.S. These films have been presented to the MAVI through the courtesy of the American Cyanamid Company.

#### **Acute Pancreatitis..... \$2** 17 min., si., color, 16 mm., 1955.

The film shows three cases of acute pancreatitis, one in which the hemorrhagic pancreas is seen at surgery, another in which extensive retroperitoneal necrosis is seen at autopsy and a third in which pancreatitis is followed by pseudocyst which is drained.

*Sponsor:* Surgical Products Division, American Cyanamid (Davis & Geck), Danbury, Conn.; *Author-Producer:* Hilger Perry Jenkins, M.D., University of Illinois College of Medicine.

#### **Carcinoma of the Cecum and Ascending Colon..... \$2** 19 min., si., color, 16 mm., 1951.

The film shows four cases to illustrate the pathology in relation to varied clinical manifestations. This includes a typical case, as well as a secondary primary carcinoma of the large intestine, carcinoma producing obstruction, and perforated carcinoma with abscess and subsequent draining sinus.

*Sponsor:* Davis & Geck, Inc., Div. of American Cyanamid Company, Danbury, Conn.; *Author-Producers:* Hilger Perry Jenkins, M.D., Robert Gunning, M.D., and John Campiche, M.D., Department of Surgery, University of Illinois College of Medicine and Woodlawn Hospital, Chicago.

#### **Diseases of the Appendix..... \$2** 18 min., color, 16 mm., 1953.

The film shows acute appendicitis at surgery and in surgical and autopsy specimens. Various types of acute appendicitis are demonstrated including abscess, fatal peritonitis, mucocele, adenocarcinoma, and a distended appendix

due to colon obstruction.

*Sponsor:* Surgical Products Division, American Cyanamid Company (Davis & Geck), Danbury, Conn.; *Author-Producers:* Hilger Perry Jenkins, M.D., and Douglas Packard, M.D., Department of Surgery, University of Illinois College of Medicine and Woodlawn Hospital, Chicago.

#### **Diseases of the Gall Bladder..... \$2** 21 min., si., color, 16 mm., 1949.

This instructional film presents a series of seven gall bladder pathologies demonstrated at the operating table and in surgical specimens, correlated with cholecystograms and brief titles relating pertinent points of the histories, physical and laboratory findings.

*Sponsor:* Davis & Geck, Inc., Div. of American Cyanamid Company, Danbury, Conn.; *Author-Producers:* Hilger Perry Jenkins, M.D., Rudolph Janda, M.D., and Douglas Packard, M.D., Department of Surgery, University of Illinois College of Medicine and Woodlawn Hospital, Chicago.

#### **Diseases of the Small Intestine..... \$2** 30 min., (2 reels), si., color, 16 mm., 1956.

The film shows cases of gunshot wounds, Meckel's diverticulum with perforation and another with heterotopic gastric mucosa, adenomatous polyp which has led to intussusception, lymphosarcoma and regional enteritis. X-rays and brief clinical data are included.

*Sponsor:* Surgical Products Division, American Cyanamid Company (Davis & Geck), Danbury, Conn.; *Author-Producer:* Hilger Perry Jenkins, M.D., University of Illinois College of Medicine.

#### **Diseases of the Stomach and Duodenum \$2** 18 min., si., color, 16 mm., 1950.

The film shows four cases: gastric carcinoma, gastric ulcer, perforated duodenal ulcer, and gastrojejunal stoma ulcer, following gastrojejunostomy. Diagrams are used to correlate the pathology with the X-ray.

*Sponsor:* Davis & Geck, Inc., Div. of American Cyanamid Company, Danbury,

Conn.; *Author-Producers*: Hilger Perry Jenkins, M.D., and Douglas Packard, M.D., Department of Surgery, University of Illinois College of Medicine and Woodlawn Hospital, Chicago.

**Gallstone Ileus..... \$2**

14 min., si., color, 16 mm., 1952.

Four cases illustrate this interesting cause of obstruction of the small intestine. Diagrams with some animation are used to clarify the etiology.

*Sponsor*: Davis & Geck, Inc., Div. of American Cyanamid Company, Danbury, Conn.; *Author-Producers*: Hilger Perry Jenkins, M.D., Wolfgang Kollert, M.D., and Raymond Kjellberg, M.D., Departments of Surgery and Medical Illustration, University of Illinois College of Medicine and Woodlawn Hospital, Chicago.

**Gastrojejuno-colic fistula ..... \$2**

16 min., si., color, 16 mm., 1955.

The film shows a case of gastrojejuno-colic fistula following partial gastrectomy for duodenal ulcer. The photography of the operation and the surgical specimens showing the fistula is supplemented by diagrammatic models and animated X-ray.

*Sponsor*: Surgical Products Division, American Cyanamid Company (Davis & Geck), Danbury, Conn.; *Author-Producers*: Hilger Perry Jenkins, M.D., and Douglas Packard, M.D., University of Illinois College of Medicine.

**Hemorrhage from Duodenal Ulcer..... \$2**

11 min., si., color, 16 mm., 1953.

An autopsy specimen presents a large (3 cm.) duodenal and a small pyloric peptic ulcer; from the eroded artery in the large ulcer's crater blood is ejected to mimic the hemorrhage of the patient's fatal living pathology. In a surgical case, bleeding is visualized, and a transfixion suture is placed. The potential volume of blood loss and methods of treatment are stated in titles. A second autopsy specimen (death from coronary occlusion) shows a transfixion suture in the eroded gastro-duodenal artery.

*Sponsor*: Davis & Geck, Inc., Div. of American Cyanamid Company, Danbury, Conn.; *Author-Producers*: Hilger Perry Jenkins, M.D., Otto Trippel, M.D., and Dean Blair Smith, M.D., Department of Surgery, University of Illinois College of Medicine and Woodlawn Hospital, Chicago.

**Intestinal Obstruction due to**

***Ascaris Lumbricoides*..... \$2**

14 min., si., color, 16 mm., 1953.

In the case of a four-year old Puerto Rican girl, X-rays demonstrate signs of bowel obstruction, with multiple fluid levels. Through four enterotomies, a large number of ascarids are removed. An unusual X-ray is shown which visualizes an ascarid in the intestine. The life cycle of *A. lumbricoides* is shown in simple animation, and symptoms, complications and treatment are given by title.

*Sponsor*: Davis & Geck, Inc., Div. of American Cyanamid Company, Danbury, Conn.; *Author-Producer*: Hilger Perry Jenkins, M.D., *Editor*: Daniel J. Pachman, M.D., Departments of Surgery, Pediatrics and Medical Illustration, University of Illinois College of Medicine and Woodlawn Hospital, Chicago.

**Mesenteric Thrombosis and**

***Adhesion Band Strangulation*..... \$2**

17 min., si., color, 16 mm., 1951.

Cases of obstruction of the superior mesenteric vein are presented by means of history and findings during surgery and autopsy. Case 1: Obstruction affecting three feet of the upper small bowel; Case 2: Gangrene of the entire small bowel caused by main vessel thrombosis incident to a neoplasm; Case 3: Adhesion band venous blockage of a single loop of the ileum, released surgically while viability of the gut segment persisted. An animal experimental case of 30 hours bowel strangulation is contrasted with human Case 4: Intestinal gangrene with perforation and fatal peritonitis.

*Sponsor*: Davis & Geck, Inc., Div. of American Cyanamid Company, Danbury, Conn.; *Author-Producers*: Hilger Perry Jenkins, M.D., Robert Moe, M.D., Douglas Packard, M.D., and Robert Gunning, M.D., Department of Surgery, University of Illinois College of Medicine and Woodlawn Hospital, Chicago.

**Polyps of the Large Intestine..... \$2**

18 min., color, 16 mm., 1951.

The film shows four cases: solitary benign adenomatous polyp, familial polyposis, multiple polyps with double primary carcinoma, and inflammatory polyposis due to ulcerative colitis.

*Sponsor*: Davis & Geck, Inc., Div. of American Cyanamid Company, Danbury, Conn.; *Author-Producers*: Hilger Perry



## the descent from Mount Everest

In *utero*, the oxygen environment is comparable to an altitude of 33,000 ft.<sup>1</sup> But the fetus needs no oxygen mask. Thanks to the placenta, the unborn is well equipped for high altitude. However, a premature descent from this "Mt. Everest in *utero*"<sup>1</sup> plunges the infant into an environment for which he is *not* prepared.

**Premature birth** is associated with the majority of fetal deaths and two-thirds of early neonatal deaths.<sup>2</sup> In addition, it is a significant etiologic factor in disorders ranging from behavior problems to cerebral palsy.<sup>3</sup>

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*Complete literature is available on request.*

*References:* 1. Eastman, N. J.: *Am. J. Obst. & Gynec.* 67:701 (April) 1954. 2. *A New Focus: Perinatal Mortality*, New York: Metropolitan Life Insurance Co. 3. Pasamanick, B., and Kawi, A.: *J. Pediat.* 48:596 (May) 1956. 4. Abramson, D., and Reid, D. E.: *J. Clin. Endocrinol. & Metab.* 15:206 (Jan.) 1955. 5. Eichner, E.; Waltner, C.; Goodman, M., and Post, S.: *Am. J. Obst. & Gynec.* 71:1035 (May) 1956.

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Other films added to the MAVI Library since the compilation of our catalog are as follows.

**Activities of Microglia in Tissue Culture..... \$3**  
11 min., sd., b&w., 16 mm., 1956 (Sale: \$25).

Shows the form and activity of microglia in culture by means of phase contrast, time-lapse cinematography. Phagocytic activity is shown in human retinal tissue; the macrophagic type and the elongated adult microglia are shown in the posterior pituitary of the rat; microglia are compared with lymphocytes in a brain melanoma; and cytoplasmic activity is shown in a chromophobe tumor of the human anterior pituitary gland.

Author: Charles M. Pomerat, Ph.D., Tissue Culture Laboratory, University of Texas—Medical Branch; Producer: Wynne S. Eastman for Medical Audio-Visual Institute of the Association of American Medical Colleges. Made possible through a grant from Abbott Laboratories.

**Activities of Oligodendroglia in Tissue Culture..... \$4**  
12 min., sd., b&w., 16 mm., 1956 (Sale: \$35).

The form and activities of oligodendroglia are shown by means of time-lapse, phase contrast cinematography accelerated 180 and 1,000 times. The cultures used include tissue from the corpus callosum of the rat, human brain tissue, and cells from an oligodendroglioma. Characteristics shown include the dense perinuclear zone, the scant processes with delicate membranes at their tips, and the rhythmic contractions of the cell.

Author: Charles M. Pomerat, Ph.D., Tissue Culture Laboratory, University of Texas—Medical Branch; Producer: Wynne S. Eastman for Medical Audio-Visual Institute of the Association of American Medical Colleges. Made possible through a grant from Abbott Laboratories.

**All My Babies.....\$10**  
55 min. (3 reels), sd., b&w., 16 mm., 1953.

Film follows a midwife, working un-

der both favorable and unfavorable circumstances. A complete delivery is shown, with pre-and-post-delivery procedures shown in detail. The film is distributed in three reels, each of which ends at a logical discussion point.

Sponsors: Georgia State Department of Public Health; Producer: George C. Stoney for the Medical Audio-Visual Institute of the Association of American Medical Colleges.

**Anesthesiology on Television..... \$6**  
28 min., b&w., sd., 16 mm., 1955.

An edited kinescope recording of two half-hour TV programs. The details of an anesthetic machine are shown and a patient is induced using an intravenous barbiturate and endotracheal intubation. Regional anesthesia is discussed and two blocks (suprascapular and ankle) are demonstrated. A verbal summation of the function of the anesthesiologist outside the operating room is given.

Producers: New York University Post-Graduate Medical School Audio-Visual Department; Narrator: E. A. Rovenstine, M.D.

**Embryology and Pathology of the Intestinal Tract..... \$7**  
15 min., sd., color, 16 mm., 1954.

Divided into two parts, the first part shows the growth and development of the intestinal tract of the human embryo from the fourth to the twelfth week. Animation techniques trace the development of the tract in the umbilical cord and follow the pattern of its return to the abdomen. Essential phases of the rotation process are demonstrated by means of clay models. The second part traces anomalies to arrested stages of embryological development. The anomalies shown include Meckel's diverticulum, omphalocele, paraduodenal hernias, and volvulus.

Authors: Lawrence Chaffin, M.D., and William Snyder, M.D., Los Angeles; Producers: Graphic Films Corp., Hollywood.

**The Function of the Normal Larynx..... \$7**  
18 min., sd., b&w., 16 mm., 1956.

Shows in slow motion the action of the human larynx in the production of sounds of different pitches. Models are first used to show the anatomy of the larynx. Actual high-speed photography slows the action of the vocal chords by

3,000, and in some sequences, 5,000 times. The actual sounds, at normal speeds, are matched (but not synchronized) with the slow motion visuals to show the relationships between pitch and laryngeal action. Included is a matched sound-visual of a cough. Sequences showing the camera equipment used in photography are included.

**Sponsors:** The William & Harriet Gould Foundation; **Author-Producers:** Paul Moore, Ph.D., and Hans Von Leyden, M.D., of the Voice Research Laboratory, Northwestern University, Chicago.

**The Hela Cell Strain..... \$2**  
11 min., sd., b&w., 16 mm., 1956 (Sale: \$35)

The film is introduced with a sequence on tissue preparation for photography and then shows the physiological characteristics of Hela cells, a malignant strain of cervical origin. Among the processes shown are cell drinking, nuclear rotation, mitosis and the action of filopodia in intercellular communication. Phase contrast, time lapse photography speeding up the action from 600 times to 1500 times is used.

**Author:** Charles M. Pomerat, Ph. D., Tissue Culture Laboratory, University of Texas—Medical Branch; **Producer:** Wynne S. Eastman for Medical Audio-Visual Institute of the Association of American Medical Colleges. Made possible through a grant from Abbott Laboratories.

**The Invader..... \$8**  
40 min., sd., b&w., 16 mm., 1955.

The story of man's efforts since the fifteenth century to subdue syphilis. Shows the step-by-step development of medical knowledge, and the changes in public attitude to the disease. The film tells its story through the available documents of each age, and is dramatized by means of contemporary woodcuts, engravings, paintings and drawings of famous artists. The later story is enriched with historic photographs of pioneers like Ehrlich and Hata, and motion picture records of the work of Fleming, Mahoney and others.

**Sponsors:** Georgia State Department of Health; **Producers:** George C. Stoney for the Center for Mass Communication of Columbia University Press, New York.

**Mosquito Stages of Plasmodium Falciparum..... \$2**  
10 min., sd., b&w., 16 mm., 1955.

By means of cinemacrography, cinemicrography, and graphics, shows (1) The female of *Anopheles quadrimaculatus* obtaining a blood meal and the action of the mosquito mouth parts within tissues; (2) Gametocytes, gamete formation and fertilization; (3) Development of the ookinete, oocyst, and sporozoites; (4) Transfer of sporozoites to the salivary glands and their inoculation into the tissues of the host when the infected mosquito feeds. (This is a companion to *Erythrocytic Stages of Plasmodium Vivax*.)

**Producers:** Communicable Disease Center, and the Laboratory of Tropical Diseases of the U.S. Public Health Service; **Authors:** Malcolm S. Ferguson, Ph.D., Gordon B. Wolcott, Ph.D., and Martin D. Young, Sc.D.

**Movements of the Cardiac Valves and Origin of the Heart Sounds..... \$7**  
20 min., sd., color, 16 mm., 1955.

Actions of cardiac, aortic and pulmonary valves of the isolated perfused heart of the dog are shown in normal and slow motion. Simultaneous ECG and phonocardiographic records accompany the activities of the heart and valves. The first and second sounds of the heart are presented. Excision of the valve leaflets and insertion of water-filled balloons silence the first heart sound, and immobilizing the aortic valves eliminates the second heart sound. Comments and brief discussions, in the form of printed subtitles, accompany the various aspects of the film.

**Authors:** H. L. Smith, M.D., H. E. Essex, Ph.D., and E. J. Baldes, Ph.D.; **Producers:** Mayo Clinic, Rochester, Minn.

**Nephrosis in Children..... \$2**  
18 min., sd., color, 16 mm., 1954.

This film assists the practitioner in recognizing childhood nephrosis during its insidious onset, discusses diagnostic features, clinical and laboratory findings, course of the disease, major principles of management, complications, and prognosis.

**Producers:** Campus Film Producers for Pfizer Laboratories, Division, Chas. Pfizer & Co., Inc.; **Medical Supervisor:** Robert E. Cooke, M.D.; **Script:** Ralph Schoolman and Leo L. Leveridge, M.D.

**Pharmacologic Study of Metrazol (Three Parts)..... \$2**

54 min., si., color, 16 mm., 1948.  
**Sponsors:** Bilhuber-Knoll Corp; Au-

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thor-*Producers:* R. P. Walton, M.D., and O. J. Brodie, Department of Pharmacology, Medical College of South Carolina.

**Characterization of Depressants**  
**(Part II) (17 min.)..... \$2**

Shows the relative depth and persistence of depression in dogs given paraldehyde, pentothal sodium, and phenobarbital sodium sufficient to produce light surgical anesthesia. The effects of these and other common hypnotics are shown on a depth-recovery time chart using in a modified form Guedel's signs and stages of anesthesia.

**Circulatory and Respiratory Effects**  
**(Part IV) (20 min.)..... \$2**

Dogs are used to demonstrate the vasoconstrictor and respiratory effects of Metrazol under conditions in which arousal is not manifest. Pneumographs, recording tambours and an air volume measuring device are used to show respiratory effects. Electrocardiographic tracings and the Cushny heart levers are used to demonstrate the action of Metrazol on the heart *in situ* (with both vagi cut and barbital as the anesthetic). Extreme cyanosis, dilation and ECG irregularities are shown.

**General Description**  
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Shows by means of demonstrations the physical and pharmacologic properties of Metrazol. The excitant action of Metrazol on the central nervous systems of frogs is compared with that of strychnine both before and after brain transection. The arousing action under con-

ditions of near or light anesthesia is demonstrated in dogs and mice, and the change of pattern of electroencephalographic tracing taken during pentobarbital anesthesia shown.

**Resection of Abdominal Aorta for**  
**Arteriosclerotic Occlusive Disease.. \$2**

18 min., si. (run at sd. speed) (cannot be used on silent projector), color, 16 mm.

Demonstrates the method of diagnosis, and operative technique in resecting the abdominal aorta and upper portions of the right and left common iliac arteries. End-arterectomy is used to free the proximal and distal arterial thrombi. After the aorta is resected continuity is re-established by suturing an aortic bifurcation homograft in place. The gross pathologic material is shown.

*Author:* Harwell Wilson, M.D., Division of Surgery, The University of Tennessee, College of Medicine; *Photography:* John H. Dickson.

**Termination for the Bile Duct..... \$7**

16 min., sd., color, 16 mm., 1955.

Shows by means of colored drawings and partly cleared untraumatized specimens the relationship of the course of the duct, the papillary sphincter, and the "common channel." Duct termination in choledocholithiasis and in pancreatitis is also shown as well as a visualization of interductal reflux when an ampulla is present as a common channel within the papilla.

*Sponsor:* Davis & Geck, Inc.; *Producers:* Al Kane Productions, Inc.; *Author:* Julian A. Sterling, M.D., Graduate School of Medicine, University of Pennsylvania.

# *R<sub>x</sub> for the Spring Term— Stock up on Clinical Books*

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## **Demonstrations of Physical Signs in Clinical Surgery**

12th edition (1954)

By Hamilton Bailey, F.R.C.S., F.A.C.S.

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21st edition (1953)

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## **Textbook of Clinical Pathology**

5th edition (1955)

By Seward E. Miller, M.D.

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1203 *pp.*

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## **Pharmacologic Principles of Medical Practice**

3rd edition (1954)

By John C. Krantz, Jr., Ph.D. and C. Jelleff Carr, Ph.D.

111 *figs.*

1183 *pp.*

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## **Textbook of Gynecology**

5th edition (1956)

By Emil Novak, M.D. and Edmund R. Novak, M.D.

543 *figs.*

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3rd edition (1956)

By Fletcher H. Colby, M.D.

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# Book Reviews

## Modern Operative Surgery

G. Grey Turner and Lambert Charles Rogers. Volume I—Paul Hoeber, Inc. Medical Book Department of Harper and Brothers, Great Britain.

This work attempts to present an authoritative survey of the whole range of modern surgical operations. This is obviously a tremendous undertaking and there are areas in which such a project is expected to present shortcomings.

There is an excellent index and a concise table of contents. The entire work is very pleasant reading, flavored with some medical history but frequently failing to bring the reader entirely up to date. Perhaps a part of the disparity between the impressions gained in reading this volume and the modern concept of surgery in the United States is due to our greater willingness to accept change. Whatever the reason, there is a general feeling while reviewing this book that it was written 10 or 15 years ago, and that it is not really modern. To some extent this is unavoidable in any such undertaking.

The concepts presented are sound, but no mention is made of a number of presently well accepted procedures. Illustrations are quite clear, but more would be appreciated. Descriptions of techniques are usually clear but often differ from that most generally accepted in this country.

This book is intended primarily for surgeons. It will be of some interest and help to resident surgeons and to the practicing surgeon but chiefly in fields other than that of their primary interest.

William H. Moretz, Georgia

## Textbook of Gynecology

Emil Novak and Edmund R. Novak. Williams & Wilkins Co., Baltimore, 1956. 840 pp. with index.

This book since the first edition in 1941, has been one of the standard texts in the field of obstetrics and gynecology. The fact that the fourth edition was reprinted four times between the years 1952 and 1955 attests its wide popularity. This edition is jointly authored by Dr. Emil Novak and his son Dr. Edmund

Novak. Its classical didactic style has not been changed but there have been many changes in certain of the chapters, particularly those concerning uterine cancer. The references following each chapter have been brought up to date by the inclusion of much of the recent literature and exclusion of some of the old references.

While this book has been written primarily as a student text, its size (840 pages including the index) will necessitate its use as a reference book rather than one which can be assimilated from cover to cover. However, the beautiful illustrations, many of which are in color and which number more than 500, plus the easy readability and interesting style, make this an extremely valuable book for students and practitioners alike.

While in general there can be little disagreement concerning the diagnosis and management of the major gynecological conditions covered, there will be some who will disagree on some of the fine points such as the statement on page 331 that all retrodisplacements found postpartum should be restored to normal position and a pessary inserted. Also such doubtful conditions as "menstrual and menopausal headache" and "menstrual epilepsy" could well have been omitted.

There would seem little doubt that this fine book will be well received by students and practicing physicians.


Ben M. Peckham, Wisconsin

## Diseases of the Nervous System

By Russell Brain. 5th edition, Oxford University Press, London, New York, Toronto, 1955.

It is remarkable that of all the textbooks of clinical neurology that are available there is no agreement which is the best general book for students. Indeed it is unlikely that any three would stand far ahead of the others. The reason for this is chiefly that the emphasis put on the many aspects of the subject varies greatly from school to school. In some the neuroanatomical features of neurological diagnosis are unduly stressed, in others teaching is centered on neurophysiological tech-






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niques. In still other centers teaching is focussed on the classical syndromes of neurology. In the last 15 years many neurological departments have made a point of bringing neurological medicine into close integration with internal medicine in general, emphasizing for example cerebrovascular disease, and the neurological complications of visceral disease. This last is clearly the special interest of neurological medicine if it is to hold its place in the estimation of the internist.

Russell Brain's textbook gives an excellent general account of clinical neurology, without overstressing any one of these points of view. In it the emphasis is on the clinical approach to neurological problems, with only such neuroanatomical and neurophysiological data as are of everyday use in the clinic. In such an account it is difficult to avoid an encyclopedic style owing to the hundreds of small 'syndromes' that encumber this subject, and difficult to make interesting so many conditions of which "the treatment is that of the cause."

This textbook stands alone in the amount of such clinical information available within reasonable compass. One could wish for a more physiological, dynamic approach to the subject of cerebrovascular disease, for example, but such discussions of pathogenesis would probably require sacrifice of much valuable space. In this book the presentation is adequate for diagnostic neurology. Similarly the difficult subject of aphasia is dealt with as a clinical problem that bypasses the psychological and anatomical morass into which any more philosophic discussion is likely to lead. The separate discussion of dementia and emotional disorder from the clinical neurological point of view is strongly recommended. The description of laboratory methods is reduced to their clinical applications, which we believe is their proper emphasis in any clinical text. The bibliography appended to each chapter is well chosen and has been revised in the present edition. We believe that this is the best all-round description of clinical neurological medi-



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1. College Study Report: Population Bulletin 11:43 (June) 1955. 2. Tietze, C., in Dickinson, R. L.: Techniques of Conception Control, ed. 3, Baltimore, Williams & Wilkins Co., 1950, pp. 53-57.

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**Rosenau—Preventive Medicine and Public Health**

**Kenneth F. Maxcy.** Appleton-Century-Crofts, Inc., New York, 1956. 1465 pp. with index.

With increasing emphasis being given to preventive medicine in medical school teaching the question of textbooks becomes particularly important. Rosenau's text has long been one of the standard works in the field and the two editions which have been edited by Maxcy have maintained the high standards of the first six editions. Appropriately the title has been changed with Public Health being substituted for Hygiene. After the major rewrite that was done in the seventh edition, the eighth edition which has come after an interval of only five years has the same organization and number of pages as its immediate predecessor. Since it is the oldest of the standard texts it is not surprising that this edition continues to present more or less the traditional public health approach to preventive medicine. There is strong emphasis on communicable diseases (more than one third of the book), and on sanitation and industrial hygiene (almost one third of the book), with nutrition, maternal and child health, chronic diseases, and public health methodology and administration sharing the remaining third of the book. For students of preventive medicine in the United States a more complete presentation of the preventive aspects of chronic and noninfectious diseases would appear to be indicated. For instance, in the 20-page chapter on epidemiology which is unchanged only two pages are devoted to noninfectious diseases.

A number of specific comments about changes in the present edition illustrate the general observation that most alterations are concerned with introducing up to date material. The discussion of smallpox has been modified to incorporate recent data on pathogenesis, transmission, and laboratory diagnosis. Similarly there are new sections on "epidemic nephritis" based on the work of Rammelkamp and Weaver, on the treatment of diphtheria, on mumps vaccine, the regulations relating to quarantine in pertussis, etc. There is a small section on A.P.C. virus which is not really up to date even now because of rapid developments in this

field. Similarly there is no mention of the culture of measles virus by Enders or chickenpox virus by Weller. The use of penicillin for rheumatic fever is mentioned, but the declining incidence of rheumatic heart disease is not.

The rewritten section on tuberculosis includes a fairly complete analysis of B.C.G. programs. Commendable changes have been made in discussing international quarantine for cholera particularly deleting the recommendation suggesting bacteriological testing of feces of all persons coming from cholera areas. On page 236 the work of "Phillips and others" is cited on the relation of amebiasis to bacterial infections in germ free guinea pigs, but no references are included at the end of the chapter.

An interesting change is that the chapter on poliomyelitis has been reduced by three pages. Is this an indication of already decreasing interest in this disease? In this section several changes have been introduced in keeping with recent developments. The section on immunity has been rewritten, but vaccination receives only brief discussion. There is a good five page review of the Coxsackie viruses. Other sections in which important changes have been made are the control of leprosy with changes in regulations reflecting better chances for treatment, the substitution of West Nile encephalitis for Mengo encephalitis, trench fever, anthrax, quarantine for psittacosis, histoplasmosis, snake bite and caloric requirements for women. Minor grammatical points persist such as on page 566 the section on coccidioid granuloma starts "In that region", with the antecedent being unclear since both Argentina and California are referred to in the preceding paragraph. Also on page 740 five year survival rates are given for cancer in various sites during the period 1942-1946. In the relevant paragraph on page 741, the wording does not match the changed table when it talks of progress in care for cancer patients since the new data are also for the period after 1942.

Most of the changes in the Industrial Hygiene and Sanitation sections are new tables and graphs to bring data up to date. An obviously necessary change is the discussion in the final section of the Department of Health, Education and Welfare and the new responsibilities of the United States Public Health Service.

Carl E. Taylor, *Harvard*

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# The Personnel Exchange

## Faculty Vacancies

• **BIostatistician:** A vacancy exists in the newly organized division of biostatistics, department of public health, faculty of medicine, University of British Columbia, Vancouver 8, B.C., Canada. Applicants must have a basic degree in arts or science and should have had considerable training and experience in statistics. Preference will be given to those with a postgraduate qualification in biostatistics. The appointee will be required to organize a program of research and teaching. Salary according to qualifications and experience. Address: Dr. James M. Mather, Professor of Public Health, at the above address.

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Information for these columns should reach the Personnel Exchange, Journal of Medical Education, 2530 Ridge Avenue, Evanston, Illinois, not later than the 10th of the month which precedes the month in which the listings will appear.

## Personnel Available

• **PHYSIOLOGIST-CYTOLOGIST:** Ph.D., male, 30, married. Background in mammalian physiology, zoology and anatomy. Desires opportunity for research with or without teaching, in the East. Interest and experience in invertebrate-vertebrate material, problems in nuclear and cytoplasmic inter-relationships, cytochemical studies on nuclear changes during tumor formation using cytospectrophotometry, electron microscopy. Some teaching experience in mammalian physiology. Address: A-249.

• **MEDICAL BACTERIOLOGIST:** Ph. D. Excellent background. Fifteen years responsible research, teaching, diagnostic bacteriology and administrative experience in colleges, universities and hospitals; 10 years TB research; 7 years director of research. Desires teaching and/or research, preferably in medical school, or position as bacteriologist in charge, chief or director of research in some area of medical bacteriology, preferably TB. Address: A-253.

• **MEDICAL JOURNALIST:** Woman writer and photographer. Medical social work education. Experienced in magazine layout and production. Seeks publicity or magazine position in midwest or western area. Address: A-247.

• **PUBLIC RELATIONS DIRECTOR:** Top medical center experience. Seeks growth opportunity in medical administration. Address: A-241.

• **OPHTHALMOLOGIST:** 32. Three years approved residency in ophthalmology from a large teaching general hospital. Desires teaching or research fellowship in ophthalmology at a medical-hospital institution or preceptorship under ophthalmologist. Address: A-242.

• **BIOCHEMIST:** Ph.D., Columbia University, 1940. Good background in teaching and research. Associate professor of biochemistry; numerous publications on chemistry and metabolism of steroid hormones. Presently completing two year visit in English medical college. Available USA, fall, 1956. Address: A-243.

• **MICROBIOLOGIST:** Ph.D., 34, male, married. Background in host-parasite relationship in infectious disease, radiation, microbiology. Three years research and part-time teaching experience. Desires position in teaching and

research. Would consider medical school appointment with opportunity to complete requirements for M.D. degree. Address: A-248.

• **PHARMACOLOGIST:** 26. Will complete Ph.D. work by October 1956. Have completed 2½ years medical school and passed first half state and national board examinations. Experience in teaching in pharmacology laboratory. Research in endocrinology. Desires part time teaching or research position in a medical school with opportunity to complete work for M.D. degree. Address: A-250.

• **PEDIATRICS INSTRUCTOR:** 64. Graduated from Russian medical school, have 32 years teaching experience in Russian and Austrian medical schools, hospitals as associate professor, later head of medical staff. Address: A-252.

• **THORACIC SURGEON:** British subject, F.R.C.S. 34. Postgraduate work includes 3 years in U.S. Familiar with cardiac catheterisation and cardio-pulmonary functional investigations. Experience has included basic research and lectureship in surgical anatomy. Address: A-256.

• **INTERNIST-CARDIOLOGIST:** 37. Seeks change of location. Presently director of cardiopulmonary laboratory of large university hospital. Have active research program. Also direct cardiac clinic and teaching program. F.A.C.P. Certified in sub-specialty. Interested in teaching, administration, research. Address: A-251.

• **ANATOMIST:** 36, M.D. (Vienna) Austrian. Publications, societies. Five years teaching experience in approved North American medical school. At present associate professor. Seek 2-3 years teaching experience in U.S. medical center. Address: A-257.

• **MEDICAL WRITER:** Male, veteran, married. B.J. degree in medical journalism; A.B. degree in zoology. Address: Box 491, Columbia, Mo., for portfolio.

• **MICROBIOLOGIST-PARASITOLOGIST:** Ph.D., 29. Four years teaching experience in small college; four years productive research in the nutrition, biochemistry, immunology and chemotherapy of parasitic infections. Extensive graduate training in pharmacology. Member of Sigma Xi and many other professional societies; numerous scientific publications. Married, veteran. Desires academic appointment with good facilities for research. Address: A-258.

• **CLINICAL RESEARCH:** M.D. presently engaged in experimental and clinical research into hemodynamic problems of hypertension. Located now in England, English training. Interested in extending experience by working in a research unit in the U.S. Address: A-254.

• **PHYSIOLOGIST:** Ph.D. Biochemically oriented. Experienced in the application of microchemical methods. Extensive research experience. Presently studying biochemistry of the eye. Desires academic position with teaching and research responsibilities. Address: A-259.

• **PHYSIOLOGIST:** M.B.B.S., M.Sc. (med.). 32, Indian. Hold teaching and research position (8 years) as lecturer in physiology. Possess special training in nutrition researches. Publications. Desire postgraduate studies in physiology leading to Ph. D. Prepared to work on stipend or fellowship in any capacity. Address: A-255.

• **PHARMACOLOGIST-PHYSIOLOGIST** — Ph.D., 37, Metropolitan N.Y. area only. Full or part-time teaching and/or research position in medical or dental school or membership in hospital research team. Teaching experience—seven years: Medical school-pharmacology; dental school-pharmacology; physiology; pharmacy school-pharmacology; nursing school—physiology and anatomy; chemistry; college—biology, zoology, physiology, chemistry. Four years' experience in hospital research laboratories—cancer, metabolism and gastro-

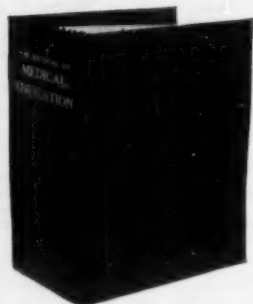
enterology. Publications: endocrinology, gastroenterology, toxicology. Address: A-260.

• **BIOCHEMIST:** Ph.D., June 1957, male, married. Responsible research experience in endocrinology, enzymology. Presently engaged in protein research. University teaching experience in zoology, biochemistry. Publications on hormones, enzymes. Special research interest in serum lipoproteins, atherosclerosis. Trained in research administration, physiology, clinical psychology. Desires academic or responsible research position. West preferred, but other locations considered. Address: A-261.

• **NEURO- and MICRO-ANATOMIST:** Desires teaching appointment, South or Atlantic Coast. Fifteen years' experience in conduct of courses. Publications, and textbook currently approaching third edition. Address: A-262.

• **INTERNIST-GASTROENTEROLOGIST:** 40, family. Certified by American Board in internal medicine and in gastroenterology. Six years training, Mayo Clinic and university. Past experience in clinical investigation. Former university faculty member in gastroenterology section. Past two years associated with clinic. Training in internal medicine well-rounded and includes, in addition to gastroenterology, hematology, peripheral vascular diseases and nutrition. Qualified in bone marrow interpretation, gastroscopy and other techniques. Societies. Publications. Desires university appointment. Prepared to organize and head gastroenterology section. Address: A-263.

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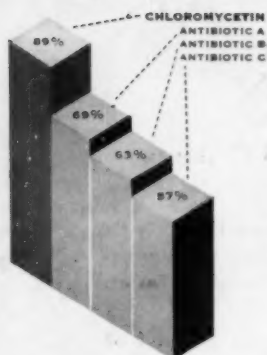
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(Zone)

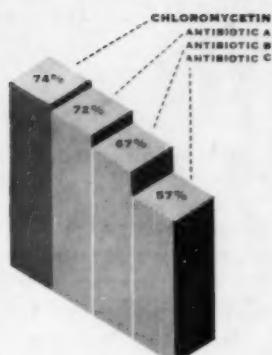
(State)

Field of medical education in which chief interest lies: \_\_\_\_\_

College or other connection: \_\_\_\_\_

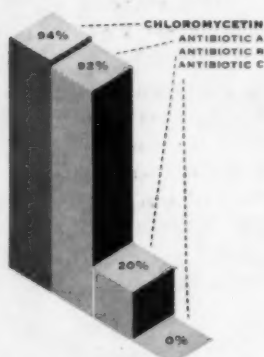


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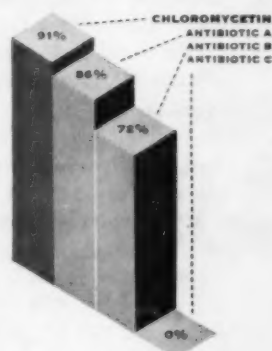


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\*This graph is adapted from Altemier, W. A.; Culbertson, W. R.; Sherman, R.; Cole, W.; Elstun, W., & Fultz, C. T.: J.A.M.A. 157:305 (Jan. 22) 1955.



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